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LECTURES

DELIVERED IN THE THEATRE OF

ST. GEORGE'S HOSPITAL,

IN THE SESSION 1843-44,

BY

SIR BENJAMIN COLLINS BRODIE.

Non-scirrhous tumours of the breast. On the use of mercury in syphilis. Treatment of syphilis without mercury. Cases in which mercury should or should not be given.

GENTLEMEN,—The observations which I addressed to you in my last lecture were made on the supposition that care would be taken to distinguish scirrhous and other malignant tumours of the breast from those of a non-malignant character. I consider it unnecessary to call your attention to the diagnosis of different tumours, but I am anxious to impress upon your minds that you must be careful to learn this for yourselves from other lectures. When a practitioner tells me that he has been particularly successful in the operation for scirrhous tumours of the breast, I am always satisfied that there has been a want of accuracy in the diagnosis. I remember a gentleman stating that he had performed this operation ten times, and that the disease had not returned in a single instance. No very experienced surgeon would have made that statement, but I subsequently saw a tumour which this gentleman was going to remove, and it was nothing more than a common chronic abscess of the breast which he had denominated scirrhus.

I shall now call your attention to another subject—the administration of mercury in cases of syphilis. I shall not enter into detail either as to the mode of its exhibition or the cases in which recourse should be had to it; but I purpose to make some general observations, which, at this time, when so much difference of opinion prevails as to the use of mercury, and there is so much random practice in its employment, may be serviceable to you in the beginning of your profession.

Mercury was used in cases of syphilis very soon after the disease was first recognised in Europe. I believe that from within three or four years after the siege of Naples, where it was supposed that it first broke out, through good report and through evil report, in spite of the too strong prejudices of some in its favour, and of others against its use, mercury has maintained its general reputation in the profession up to this day. At different periods, however, other remedies have been proposed for the cure of venereal disease. The late Sir Wm. Fordyce wrote a pamphlet for the purpose of proving that it was to be cured by sarsaparilla. An army surgeon, Mr. Grant, wrote a pamphlet in favour of opium; another practitioner has cured it by ammonia, and others have spoken highly of nitro-muriatic acid. Many other remedies have been proposed as a substitute for mercury, which it is not necessary for me to enumerate. In hot climates—Spain, Portugal, the West Indies, and the islands of the Pacific Ocean, syphilis was said to be cured without the aid of a particle of this remedy. But in opposition to what I have just mentioned there was, in the beginning of this century, a prevailing notion that mercury was a specific for syphilis, and that it was never cured without it, The late Mr. Abernethy, in his work on what he terms pseudo-syphilis, lays it down as a rule that syphilis is uniformly progressive if mercury be not administered, and he said of every disease that came before him in which the symptoms improved without the aid of mercury, "this cannot be syphilis." He gave no reasons for this extraordinary assumption —it was a complete *petitio principii*—a begging of the question, and this illogical conclusion, at which he had arrived, was sufficient to destroy the value of this part of his works. Not long after this opinion had been published by him, and was maintained generally throughout the profession, a friend of mine, the late Mr. Rose, who subsequently became surgeon to this hospital, instituted a series of experiments on the subject of the treatment of this disease. He had ample opportunities for carrying these on; for he was surgeon to one of the regiments of Guards, and soldiers associating with the lower order of prostitutes, I need hardly say are very liable to become affected with

syphilis. For one or two years he treated every soldier that came into the regimental hospital, suffering under any form of syphilis, without mercury. I saw these cases, and every now and then watched their progress with him. Every sore upon the organs of generation was cured under his management without the employment of this agent. It is true that many of these sores were not venereal, but many of them were of that character; and the hardness which was left behind disappeared without resort to mercury. Many of these patients never had secondary symptoms, which may be attributed to the sores not having been venereal; but in some cases, where secondary symptoms appeared, they were slight, and others severe, exhibiting nearly the usual character, but whatever they were they yielded without this agent. In two or three cases where there was inflammation of the iris, and mercury was necessary in order to save the eye, he employed it. Mr. Rose, therefore, came to the conclusion, which these cases seemed to justify, that the disease was one which would get well even if mercury was not used. Other army surgeons repeated these experiments, and arrived at the same result, and I believe that the disease is now treated in the army to a considerable extent in this manner.

Now, these observations led a certain part of our profession to a view of the subject entirely different from that which they before entertained; and some began to contend that mercury did a great deal of harm, and was in itself a worse disease than the one it was intended to cure. With respect, however, to recovery from syphilis without the aid of mercury, I do not believe that you can apply a rule, drawn from the observation of what occurs in soldiers, to society at large. We find that the effects of disease in all cases depends very much on the kind of constitution that has to sustain it. Students from the country, on coming here, have frequently expressed their astonishment at the difference in recovery from compound fracture in the hospital and in those places in the country where they have seen it. But here the occurrence takes place in one kind of constitution, and there in another. When the cholera visited London it destroyed 300 out of more than 1,500,000 inhabitants; in Sunderland it carried off a large proportion of the population; and in Paris I think the mortality was about one in thirty. Here the cholera did not destroy the affluent classes, but those who were ill fed, ill-clothed, and were breathing a poisonous atmosphere, and they sank under it with great rapidity. So I apprehend it to be with syphilis. Soldiers are men with strong constitutions, and are in good health, otherwise they would not be received in the army. They are not much advanced in life; they are sent to the regimental hospital, and are there kept constantly under the eye of the surgeon, dieted as he pleases, and their general health is attended to in every respect. They are not allowed to be exposed to atmospheric changes of the weather, and, in short, from their constitution and the situation in which they are placed, they may be supposed to have the power of throwing off morbid poisons which would not be thrown off by others. Experience and practice will, I think, fully confirm these observations. I know that in this hospital I have tried to treat syphilitic patients without mercury with very little success indeed, and that in private practice the attempt would prove altogether a failure. Sir Wm. Wimpress, who was surgeon-major to the Coldstream Guards, but has now retired from service, saw a great deal of syphilitic practice, and he told me that he could manage the cases of privates in this manner, but not of officers. When Mr. Rose entered into private practice he thought that he could apply the same rule there which he had carried out among the soldiers, but he found that he could not, and he was compelled, like other surgeons, to give mercury. In cases where he endeavoured to avoid its exhibition he found that he was continually beset with difficulties.

With regard to the other point I mentioned,—the opinion that mercury very often tends to aggravate the disease instead of doing good,—I know that its injudicious use will do harm, but I am satisfied that that is not the result when it is wisely administered. It has been said that there is no disease of the bones where mercury is not given. I know that in patients who are treated by mercury there is a greater chance of disease of the bones than there was in Mr. Rose's patients, to whom it was not exhibited; and I know that when given for liver complaints and for diseased testicle it may produce nodes. But, admitting this to be true, I am quite sure that syphilis will run on till it produces nodes, by which I mean disease of the bones, even where no mercury has ever been given. I will state a case in point. A gentleman had a chancre which no one doubted to be venereal; he took no mercury and it healed up. I do not remember exactly what symptoms followed, but when I saw him, in consultation with Mr. Rose, a couple of years afterwards, he had extensive disease of the bones of the nose, which was still advancing; we agreed that the best thing we could do was to put him under the influence of mercury, of which he had never taken a grain, and try whether or not it would stop the disease. He was to be furnished with lodgings in London, for the purpose of going through a mercurial course, but he had a fit of epilepsy, and then another, and that was followed by a third, after which he became maniacal and died. I do not know that there was any post-mortem examination, but neither Mr. Rose

nor myself doubted that the disease had crept up the ethmoid cells, attacked the ethmoid bone, and affected the brain and its membranes. I saw another case treated without mercury. A patient had a primary sore, of which he got well, but a few months afterwards there was pain of the limbs, which were considered neuralgic, and by and by there was a node on the shin and another on the elbow. He had never had any disease prior to the chancre, and we could not but suppose that the virus had entered the system, and the secondary symptoms being passed over, had gone at once to the bones. The conclusion of the case was very remarkable; the patient got entirely well with sarsaparilla, no mercury being given.

I am sure that experience proves to me, and it will to you, that we find no remedy having the same power to extinguish venereal disease as mercury, but then it must be not only judiciously administered at the time, but care must be taken that it is only employed in proper cases; it may do great harm if it be improperly used. There is nothing remarkable in this fact. With the exception of sarsaparilla, I do not know of any medicine that will do great good that may not act as a poison. I saw a gentleman very nearly killed by an over-dose of quinine; the same circumstance has occurred from iodide of potassium, and many persons have been destroyed by arsenic. You are not to suppose that you are to administer mercury at random in all cases, but the general rule is that in cases of syphilis it is to be exhibited, and I shall endeavour to point out briefly, not the cases in which you may give it, but the exceptions to the rule.

First of all, there are persons of a certain delicate constitution, of a scrofulous disposition, and who are disposed to phthisis. You would not give mercury to a man of this kind until you were quite sure that it was absolutely essential; nevertheless there are persons of a scrofulous tendency who are best treated by this means. If mercury be an evil, syphilis is a still greater one. In scrofulous persons local diseases are especially developed after the system has been affected by a morbid poison. If they are disposed to phthisis they will have tubercles in the lungs after scarlatina, measles, and small-pox; and it is just the same after syphilis. You find enlargement of the glands of the neck take place whenever the system is disturbed by syphilitic virus, and here mercury is not to be exhibited unless you are sure that it is wanted. But if there be syphilis it is better to give it than let that disease take its course; it must, however, be administered with great caution, in moderate doses, and the patient must be carefully watched all the time.

Persons who appear to be in strong and vigorous health are not always good subjects for mercury. Many persons of this description have been living irregularly, drinking a great quantity of wine, and mercury is very likely to disagree with them and produce great mischief. True it is that the poison of syphilis will do the same; it will often produce frightful symptoms and the most intractable diseases; but it is better to put off the use of mercury for some time until you can improve the constitution. If mercury be exhibited under such circumstances you have two evils to encounter, but by withholding it you have only one. If you wait, put the patient on a better system of diet, make him live a more regular life, and attend to the general health in all respects; you may then administer mercury with advantage, and probably cure the case.

There are some persons in whom, for reasons we cannot explain, mercury always acts as a poison. They certainly are few in number, but you cannot tell beforehand who they are, and therefore every person should be carefully watched to whom you administer mercury. Where there is a great deal of inflammation in the neighbourhood of a primary sore it is scarcely ever right to have recourse to mercury in the first instance; for the probability is that it will produce sloughing. You must combat the disease by bleeding, purging, and other means; and it is better to patch up the sore as well as you can, and let the disease go on until it has produced secondary symptoms, than to give mercury to a patient under these circumstances. In cases of phagedenic and sloughing chancre, where the condition of the chancre depends on the patient's constitution, mercury, if given in the first instance, will aggravate the disease, and make it spread more rapidly than it would otherwise do. But there are cases in which the phagedena depends on the intense action of the venereal poison, as I shall hereafter explain, and in that case mercury may be exhibited.

You will sometimes find that in the case of secondary symptoms mercury, instead of acting upon them and curing them, disturbs the general health; the symptoms increase, and the more you give the worse they become. This arises from the patient being in a bad state of constitution, which state of the constitution may depend on causes neither under your control nor that of the patient, but on the patient having taken mercury in an injudicious manner. Under these circumstances you must not continue this agent, but leave it off, and he may then recover; nevertheless you may require to revert to it at last. In order to illustrate this observation I will mention a case. A man was brought into this hospital with sore throat, and a phagedenic eruption, having the character of syphilitic eruption, in different parts of the body, in a state of painful

ulceration. He looked exceedingly ill, and I found that he had been taking mercury in large quantities, under a private practitioner, for five months. His gums were extremely sore when he came here, and the more mercury was pushed the worse he became; I therefore left it off, and gave sarsaparilla, and in a few months, the eruption disappearing, he left the hospital. But after the lapse of a few months he came in again with sore throat and ulceration, having taken no mercury in the interval. I gave sarsaparilla a second time, and with the same beneficial effects, but the eruption did not disappear so rapidly as in the first instance. In the course of three or four months he again came in, and the ulceration was again spreading, accompanied with sore throat. I resorted to sarsaparilla a third time, and the symptoms went away, but more slowly than on either of the previous occasions. Towards the conclusion of the time that he was in the hospital he laboured under inflammation of the iris, for which I gave him oxymuriate of mercury, and he got well. Three or four months after this the disease again broke out, the ulceration reappeared and spread, and the sore throat returned. He now went into the Lock Hospital, under the care of Mr. Blair. This was fourteen months after he first came to St. George's; he had taken no mercury during that time, except for the iritis, and Mr. Blair now very properly put him under a course of mercurial inunction, and I believe he was permanently cured. If I had done this when he first came here I should probably have killed him. I might mention a great many other cases to illustrate these observations.

Now, I have said that in the great majority of cases mercury is the best remedy you can employ for the cure of syphilis, but then care must be taken that it is properly and judiciously administered. There are different ways of exhibiting mercury; it may be given internally by pills; it may be used in the form of ointment, or by fumigation. The mercurial preparations that may be given internally are various,—blue-pill, mercury with chalk, calomel combined with opium, Plummer's-pill, iodide of mercury, bichloride of mercury, and some other forms.

I have often given mercury internally in the shape of pills. When you want to affect the system rapidly, as in iritis, pills are preferable, because the mercury affects the system sooner. A patient labouring under iritis is in danger of going blind, and you must remove it as soon as you can. You effect this much sooner by giving calomel and opium than by using mercurial inunction, and in slight cases the disease may be cured by mercury administered internally. There are a good many patients so circumstanced that they cannot take it in any other manner; at other times you are indifferent about the mode of administration; and in some cases you are compelled to give it internally against your inclination. Thus, upon the whole, there are a good many cases in which mercury will be exhibited internally.

But if you inquire which is the best way of giving mercury in cases of syphilis where the symptoms are not of the very mildest character, I must say that mercurial inunction is infinitely to be preferred to mercury taken by the mouth. Mercurial inunction, however, is dirty, laborious, and troublesome, and it makes the case public to the family in which the man lives. For these reasons it will be objectionable to the patient; but it has this advantage, it is much less liable to gripe and purge, and it cures the disease a great deal better. It does not damage the constitution half so much as mercury taken by the mouth; nay, I will go so far as to say that, except in the very slightest cases, you really cannot depend upon any mercurial treatment effecting a certain cure, or even giving a good chance of it, by any other means than inunction. You may very often patch up the disease by giving mercury internally, but it will return again and again, and you may cure it at last by a good course of mercurial ointment. But especial care must be taken that this is properly applied. If it be left to a patient he will rub it in for five minutes or so, whereas it requires to be rubbed in before the fire for three-quarters of an hour ere it enters; but by and by the friction may be continued for a shorter period. Where the symptoms are not of the mildest character it is desirable that the patient should, if possible, be confined to the house. Mr. Pearson observed, long since, that going into the fresh air would undo the effect of mercury, and I never will be responsible for thoroughly eradicating the disease where the patient is at all exposed to cold, and where he does not lead a most careful and regular life.

In all cases where you employ mercury you have two objects in view,—first, to cure the present symptoms, and, secondly, to prevent their return. It appears to me that at the present day a great number of practitioners keep the first object only in view, and lose sight of the second. I have repeatedly seen persons who have taken mercury for chancre; it has healed in a fortnight, but a hard base has been left, and then in nine cases out of ten there has been secondary symptoms. If it be taken for a primary sore the patient should never leave it off until the hard cicatrix has disappeared. You must exhibit it until the sore has healed, and for some time afterwards; and the same plan must be pursued with reference to the secondary symptoms, or they will return. When the eruption has disappeared from the body it must be used as a prophylactic, to prevent the return of the disease, for probably another month.

I should say that if a patient be confined

to the house, or only allowed to go out a little once or twice a day, and if he be made to rub in mercury, and continues it for some time after the symptoms have subsided, the case being carefully watched, you will, in most instances, make a real and permanent cure of the disease. This is not the way in which it is administered by many practitioners now, but it is the mode in which it was done formerly. You must not suppose that we have made an advance in all departments of surgery; on the contrary, I am sure that in some we have gone back. I am satisfied that the mercurial treatment of syphilis, as employed by the late Mr. Pearson during a great part of his life, was as nearly perfect as possible, and it was much more successful than the less careful treatment of modern practitioners. Mr. Pearson was surgeon to the Lock Hospital, and having no general hospital to which to attend, the powers of his mind were very much devoted to this disease and to its treatment; and the practice which I have now recommended was that which he adopted. I had an opportunity of meeting him a great deal when I was first entering into practice, and I am satisfied that his mode of treatment was eminently successful. In his work on "Materia Medica" there is an article on syphilis, in which there are many excellent observations on mercury, treating the subject in detail in a way in which it is not my intention to do at present; but I refer you to that article as being well worthy of perusal.

Wherever you can, in the treatment of syphilis, make the patient take mercury in the form of unction if possible. It is the best plan to pursue in all cases, although it is not necessary in all cases; but where the symptoms are severe, and a long course is required, it is the safest mode of proceeding.

I will avail myself of this opportunity of stating the class of cases in which you may employ mercurial inunction with the greatest advantage. Children, when born, sometimes labour under syphilis, the father or mother having been affected with it—perhaps the father and not the mother. The child at birth looks thin, and is of small size, and instead of thriving it becomes still thinner. At the end of three weeks it is covered by a nasty scaly eruption; there is a sort of aphthæ in the mouth, and chaps about the lips and anus. I have tried different ways of treating such cases. I have given the child grey powder internally, and given mercury to the wet-nurse. But mercury exhibited to a child by the mouth generally gripes and purges, seldom doing any good; and given to the wet-nurse it does not answer very well, and certainly is a very cruel practice. The mode in which I have treated such cases for some years past has been this,—I have spread mercurial ointment, made in the proportion of a drachm to an ounce, over a flannel roller, and bound it round the child once a day. The child kicks about, and the cuticle being thin the mercury is absorbed. It does not either gripe or purge, nor does it make the gums sore, but it cures the disease. I have adopted this practice in a great many cases with the most signal success. Very few children recover in whom mercury is given internally, but I have not seen a case where this method of treatment has failed.

Mercurial inunction may be used in certain cases in which were mercury taken internally it would do absolute harm. For example, a gentleman had a nasty phagedenic sore upon the penis; it could not be said that he was in ill health before, and therefore there was some reason to believe that the disease was spreading from the intensity of the venereal poison. He had taken calomel and opium until the gums were sore, and he was decidedly worse under it. The disease destroyed a great part of the glans, and evinced no disposition whatever to stop. It resisted all modes of treatment until he was put on a course of mercurial inunction; its progress was then arrested directly, and the sore healed with great rapidity. I have seen several instances of the same character.

Another mode of administering mercury is by fumigation, and this may be applied either locally to a part, or generally to the whole body. The patient is to sit in an apparatus like that used for sulphur-baths, but instead of sulphur being thrown on a hot iron, black oxide of mercury is to be used. The patient may be affected very speedily by allowing him to hold his head inside the bath for two or three minutes, so that he may imbibe the mercurial vapour. I have employed this with success in several cases where it was my object to affect the system as quickly as possible, but I have found that Mr. Pearson's objection to it is well founded, namely, that it is difficult to regulate the action of the mercury. You may affect the system too much or too little, and you may be taken by surprise by the patient's gums becoming all at once excessively sore. With reference to the effect of mercury on the system generally, I believe it is always better that the gums should be made a little sore, and that there should be some degree of salivation. You cannot depend upon it when employed in syphilis unless these effects are produced.

But, as I have already said, there may be cases in which mercury may not be proper at all, and in which there are reasons for doing without it if you can. In some individuals in private practice, as well as among soldiers, the affection will be thrown off by the patient's own constitution. In a great many instances slight symptoms will disappear merely by the improvement of the

general health. A gentleman had a well-marked venereal eruption. He was in London, and was about to take mercury. He was called to go into the country, and I ordered him to let the mercury alone for the present. He had not been in the country air long before all the symptoms left him. Cases like these are recorded in Mr. Abernethy's book, and they led him to say that they were not cases of syphilis. After a patient has passed through a mercurial course it is not sufficient to tell him that his disease is at an end. It is very important that he should be kept in good health. If, after the disease appears to be eradicated, the health is broken down, the disease may return at a considerable distance of time. After a mercurial course it is well to put the patient through a course of sarsaparilla, to remove the debilitating effects of the mercury itself from the constitution. I will mention a case to show how much depends on the state of the general health. A gentleman had secondary symptoms, and I put him through a course of mercurial inunction for ten weeks. He was confined to the house and most carefully attended to, and took mercury for some weeks after the eruption had disappeared. He seemed to be quite well, and went abroad and continued so; but at the end of a year, being in Lisbon, he went out, got his clothes wet, and took cold. This was followed by a severe attack of erysipelas, and a Portuguese doctor very indiscreetly bled him to a large extent, and an enormous abscess formed. His health became completely broken down, and he had now a return of the venereal disease, the symptoms being worse than they were before. When his health had improved a surgeon in Lisbon put him under another course of mercury, and cured him.

In cases where the symptoms are aggravated by the use of mercury they may be removed by sarsaparilla; in other instances they will subside under the use of iodide of potassium. It is now very much the custom to administer the latter in cases of syphilis. No doubt it is an excellent remedy in some cases, and it comes in to your aid extremely well where you have reasons for not giving mercury; but if you ask me whether you can rely upon iodide of potassium as well as upon mercury, I say, No. You may remove slight symptoms by giving it for a time, and severe symptoms by exhibiting larger doses; but in the latter case, so far as I have seen, it does not make a permanent cure, for the symptoms return again. As a prophylactic it is not to be compared with mercury.

I have spoken of the necessity of administering mercury, not only till the symptoms are relieved, but for a considerable time afterwards. You may inquire whether a long course of mercury will not injure the constitution more than a short one. Undoubtedly it will, but that is the very reason why you should give a long course at first. I will explain myself. If you exhibit a short course the disease is sure to return; you administer a second course, and the disease returns again, and thus you have repeated courses. Not only is the system weakened by the disease, but whenever it returns it assumes a more formidable character. But if you put the patient through a long course in the first instance, the frequent recurrence to the use of mercury will be unnecessary. A patient who takes mercury for a month will probably never require it again; but if he takes it only for a fortnight he has secondary symptoms, and then he will require to take it for four weeks, so that that which is a short course at first becomes a long one in the end.

With these observations I conclude the course of lectures which I undertook to give during this winter, but before we part allow me to make a few remarks with respect to the lectures themselves. When I resigned my hospital appointment, some three or four years ago, I could not but recollect that it was here that I had been able to lay the foundation of what little knowledge I may have attained in the profession, and that some of the happiest hours of my life had been passed within the walls of the hospital, in friendly intercourse with the pupils, and that among them I had found some of my sincerest and kindest friends. I felt, at the time of my resignation, that I owed a debt of gratitude which it was my wish, as far as I could, to pay. Under this impression I offered to the weekly board and to the medical officers to deliver this annual course of lectures.

It has been my endeavour to give you some information, which, of however little value it may be to those experienced in surgery, may, I hope, be of use to you who are younger men. But I have had another object in view in the construction of these lectures. They have been entirely practical, and, with hardly any exceptions, have been drawn from my own observation and experience. I wished to set you an example of what your own mode of study ought to be. In these times there is a great quantity of medical literature, such as it is. There are books on specific diseases, dictionaries, cyclopædias, compendiums, and manuals, of all kinds; and nothing is more easy than for a person with a tolerable memory to look into books and learn by heart the prevalent doctrines and opinions of the day, and then to be able to discourse on those subjects as if he really understood something of them, and to go and pass what is called a good examination; that is, to answer every question that is put to him. You may be successful in qualifying yourselves in this manner, but, depend upon it, it will be of no avail to you in future life. A man who gets up this sort of knowledge from books is good for nothing.

He goes to the bed-side of a patient, but he knows nothing either of the disease or of its treatment, and he is, therefore, in doubt about it. He has not that confidence in himself which enables him to take every responsibility, and which medical practitioners must do in difficult cases. You must, in order to be qualified for the situations which you are hereafter to fill in life, gain your knowledge, not from books, but from your own investigations. I do no not say that you are not to look into books and to read them, but it should only be done in conjunction with practice. If you have a particular case before you, refer to a good book, and that will enable you to examine it far better than you would otherwise do; but the principal thing is to observe for yourselves. This remark applies to anatomy, to surgery, and to physic. You may get up anatomy by being examined by your teachers, by learning books by heart, and appear a very good anatomist to the man who examines you; but that knowledge will be of no service whatever in practice. No anatomical knowledge is of any use excepting that which you obtain by seeing the parts in the lecture-room and then examining them for yourselves and by your own hands in the dissecting-room. I can assure you that there is no other anatomical knowledge worth having, and the man who has qualified himself merely to pass an anatomical examination in the way to which I have referred will find that he has no chance whatever when he comes into competition with one who has made himself an anatomist in the proper way. So it is with respect to hospital practice; you must look at the cases and study them for yourselves. Examine the cases in the morning and refer to books in the evening, otherwise you will have no useful knowledge. Consider the observations which drop from the medical officers, compare what they say with the living person, and take notes with your own hands. No person can learn either medicine or surgery who does not take notes, for it is the only way to obtain that knowledge which is necessary in practice.

I take the liberty of making these observations, not that you particularly need them, but they may be of use to younger persons in the profession. The way which I have pointed out is the only one in which you will be enabled to succeed in your profession, and to practise it with comfort to yourselves and advantage to the public. In fact, I think that very few will get into practice at all who do not pursue the study of the profession in the practical manner which I have suggested. I offer these remarks with an entire feeling of friendship, and with the most earnest wish that you may be successful in your profession and do honour to this school.

The worthy baronet then retired amid the acclamations of the pupils.

HOSPITAL FOR THE CURE OF DEFORMITIES.

COURSE OF LECTURES ON THE DEFORMITIES OF THE HUMAN FRAME.

BY

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Delivered at the Orthopædic Institution, Bloomsbury-square, in 1843.

Lecture XIV.

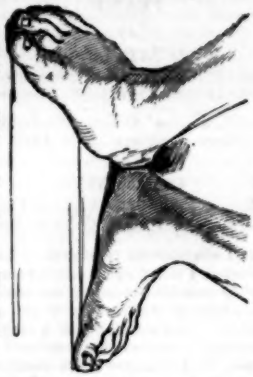
Treatment of Flat-foot, or Spurious Valgus.—Pathology of Congenital Distortions.

Before I consider the treatment of flat-foot, it is necessary that I again direct your attention to the principal points in the description of this affection which I gave you in the last lecture. It may facilitate a proper understanding of the rational treatment of this distortion, if I consider it in three stages. In the earliest stage you have principally to contend against undue laxity of the tissues about the inner ankle, the arch sinks owing to loss of tone in those structures which should maintain the concavity of the sole. The deltoid ligament, the ligaments connecting the inferior surfaces of the tarsal bones, especially the calcaneo-scaphoideum, the muscles, the tendons of which pass by the internal malleolus into the sole, are evidently weakened. When the foot is raised from the ground, especially after a few days rest, it may present nothing abnormal, but when the child stands the inner ankle projects, and the toes incline outwardly. This is the stage of the affection commonly known by the name of "weak ankle," "in-ankle." You should not conclude that the remaining textures of the limb are perfectly strong, for you will remember that in rachitis, or in general debility, every part of the member in some degree suffers. The tissues about the inner ankle, and in the sole, suffer in a greater degree, because, their office being to support the superincumbent weight of the body, to which they are inadequate, they yield and become elongated.

In the second stage (fig. 29) the displacement is not transient during the erect posture only, for example, as in the first stage, but is permanent; *deformity* is present, the foot cannot be adducted, the mobility of the ankle is impaired, the yielding of the tissues of the sole is accompanied with pain, habitual eversion of the toes, and organic shortening of the peronei, and of the extensor longus digitorum.

The third stage is characterised by aggravation of the above symptoms, considerable elevation of the outer margin and front of

foot, immobility of ankle, perfect flatness of sole, sinking of dorsum, great augmentation of length of inner edge of the foot, approximation of outer side of os calcis to inferior malleolus, shortening of anterior tibial muscle, proportionate relaxation of gastrocnemii.



Talipes Valgus Spurius, or Flat-foot. Fig. 29.

This drawing should have been inserted in the last lecture by Dr. Little, in place of fig. 28, which represents the state of restoration after flat-foot. The description of flat-foot contained in the last paragraph of the last lecture applies, therefore, to this figure.

In the first stage the individual touches the ground with the natural tripod of the foot (the heel, the ball of the great toe and that of the little toe), and with an undue proportion of the sole. In the second stage, locomotion is effected on the heel and internal margin of the foot and great toe. In the third stage, the patient walks almost exclusively on the heel.

Treatment of first stage.—The general treatment available in rachitis, or in debility, will, in this stage, be essential to the success of treatment specially applied to the foot. This should consist in restricting the patient in the amount of daily exercise, in preventing the child from disproportionately resting on one limb, if one only be affected, or in prohibiting him from standing at lessons and amusements to the usual extent. Boots, appropriately strengthened at the sides, by the shoemaker, or raised on the inner edge, sometimes furnished with a piece of cork, adapted to the natural form of the concavity of the sole, should be recommended. Embrocations or manipulations directed to the inversion of the foot, and prevention of shortening of muscles on the outside and front of the ankle, may be advantageously employed.

In the second stage, an iron, or spring, to support the ankle and invert the foot, may, in addition, be resorted to. The question of applicability of tenotomy, which is absolutely necessary in the third stage, may even in the second stage be considered. The object of section of tendons is to remove the organic or structural shortening of those muscles which is consequent on the altered form and relation of the ankle-joint. In the second stage subcutaneous section of the peroneus longus and brevis may be advisable; whilst in the third stage section of the whole of the peronei, extensor longus digitorum, extensor proprius pollicis, and tibialis anticus, will be required to restore the form, mobility, and function of the ankle.

After the operation the same principles should be adopted as in after-treatment of club-foot. The apparatus which I recommend is known at the instrument-makers' as my shoe for club-foot. In its application the several parts must of course be reversed to effect a contrary action to that required in club-foot, as in flat-foot depression of the toes and inversion of the foot is required. There is no deformity of the foot so liable as this to recur; mechanical support is therefore indispensable, for a period of two or three years after restoration, or until growth is completed. I need strongly to insist on this circumstance, and add, that your ingenuity may often be tested in adaptation of the necessary support.

CONGENITAL DISTORTIONS.

The observations on the pathology of distortions in general will have prepared you for the study of congenital deformities. You will remember that the reason formerly assigned by me for commencing with the study of distortions arising after birth was that greater facilities are presented for examining their production and mode of development; that in comprehending that which daily occurs beneath our observation we are enabled to apply the information thus acquired to unfolding the apparent intricacy of that which takes place in the recesses of the uterus. One of the most striking facts elicited from comparison of non-congenital with congenital deformities is, that certain deformities which are slowly acquired in extra-uterine existence, in consequence of paralysis, or suddenly through spastic action of muscles, are faithfully represented in certain deformities which originate during intra-uterine life. This fact is no sooner seized than the mind of the observer is at once led to the inference that the causes which have produced these identical phenomena must have been identical. The pathologist, then, more closely investigates the subject, compares anew the apparently identical changes of form which the parts of the human frame have undergone; what the identical causes are that have produced identical results; and, lastly, he compares the causes which he knows operate after birth in the production of deformity, and determines

whether these causes can be those which operate in utero.

The class of non-congenital deformities which so greatly resemble the congenital affections are the contractures; and you will remember that paralysis and spasm, and other causes enumerated in the lectures on contractures, are the precursory phenomena of these alterations from the normal form. In short, the causes of permanent deviations from the natural form in these cases operate by destruction of equilibrium in the power of opposing sets of muscles. It is unnecessary again to occupy more time with the manner in which paralysis and spasm produce deformity, it is sufficient to bear in mind that when the equilibrium of opposing sets of muscles is destroyed, those that preponderate ultimately become organically or structurally shorter, permanently adapted to the altered relation of the parts contracted, whilst the overpowered muscles, being permanently elongated, are further weakened in their texture; and even when the original cause of destruction of equilibrium is removed the parts do not spontaneously return to a natural form.

The doctrine of identity of cause in the production of non-congenital and congenital deformities presupposes the admission that similar diseased or fortuitous conditions may occur previously as well as after birth. This doctrine can, in the present day, be scarcely disputed; too many instances of disease (beyond the domain of the pathology of deformities), present at the moment of birth, or of which the traces are evident at birth, daily occur, to leave doubt in the minds of rational pathologists. I need mention only variola and tuberculous disease. The causes of *contractures*, you may recall to mind, are spasm or increased energy of certain parts of the muscular system, paralysis or diminution and deprivation of energy, and accidental causes, which, by inducing temporary malposition of a limb, occasion a contraction of some muscles, relaxation of others, and deformity. We will now consider some of the facts on which rests the presumption that these causes may affect the fœtus in utero as well as the individual at a later period of existence. It is a fact that children are often born with this deformity (see fig. 30), the most common of congenital distortions, termed talipes varus, and when presenting the average degree of severity the contraction of certain muscles on the posterior and internal surfaces of the limb, resists the best contrived mechanical modes of treatment, and, though partially overcome, continues throughout life. Experience demonstrates that this stubborn resistance to mechanical extension is, in non-congenital cases, only offered by structural shortening combined with augmented energy of the muscular fibre, and the practitioner is led to suspect a similar condition of muscles in congenital talipes varus. Again, cases of congenital deformity occur, though but rarely, in which a paralytic condition of certain muscles unquestionably exists.

Fig. 30.

Congenital Infantile Talipes Varus.

It is, then, an indisputable fact that certain deformities present themselves at birth, in which certain sets of muscles, usually the same class of muscles most obnoxious in after life to spastic contraction, namely, the flexors and adductors, are found actively contracted; and when, in addition, we observe numerous deformities in the same individual, as, for example, contracted knees, contracted hips, club-hand, in all of which the flexors and adductors, or their analogues, are the muscles specially contracted, we are led to assume that a common cause has affected these different parts of the frame. We cannot conceive that an accidental or mechanical cause, acting from without on the fœtus, could act on so many articulations in an invariable manner. A satisfactory explanation of the concurrent affection of certain classes of muscles rather than of others can only be given by reference to a cause acting within the fœtal organism. When, by this process of reasoning, the field of research is narrowed, we inquire which of the systems of the fœtus can, by its derangement, occasion the abnormal conditions of muscle on which congenital deformities depend. Disturbance and disease of the nervous system presents itself as the key to the solution of the difficulty; and we may next inquire whether other facts derived from observation of fœtal phenomena justify the opinion that derangements of the nervous centres occasions the distortions in question. It is remarked that fœtuses which have evidently suffered derangement in the development of the nervous centres, such as those denominated hemicephalous or acephalous, or affected with spina bifida, very frequently present club-foot, club-hand, or other deformity. The coexistence with congenital club-foot, of congenital squinting, and even congenital stammering or misenunciation,—diseases which clearly depend either on the increase of the involuntary or decrease of the voluntary powers of certain orbital and laryngeal muscles, corroborates the views I have given you.

In the case of strabismus and psellismus

no question can be raised of the possible operation of causes independent of the fœtus, accidental pressure for example. If further testimony be requisite to convince you that these deformities depend primarily on derangement of the nervous system, analogous, if not identical, in its nature with the derangement of the nervous system which occasions similar deformities during infancy, childhood, and adult life, you may inquire into the possibility or probability of the nervous system of the fœtus being subjected to disease, and expect me to describe the manner of its production. The most frequent sources of derangement of nervous system of the infant and child are disorders of nutrition, debility of nervous system inherited from the parents, and undue excitation of the delicate organisation of these parts. Similar sources of derangement appear to me to exist during uterine existence. I have questioned many parents who have given birth to infants thus affected, who could assign no other cause for the affliction than that of having suffered from general derangement of health during pregnancy. Several mothers have in this respect strongly contrasted the particular gestation with former pregnancies. Others have remarked the unusual extent of the intra-uterine movements of the fœtus, an almost convulsive condition. From analogy it may be inferred that no more probable cause of production of derangement of nervous system of the fœtus could occur than general derangement of the health of the mother, whether this derangement operate through the nervous system of the parent or by impaired nutrition.

Instead of club-foot, for example, being considered what it really is, a mere distortion of parts originally well formed, the popular notion is, that it depends on a deficiency of some of the parts of the limb; that it is a *malformation*, a *monstrosity*, a *lusus naturæ*, or an *arrêt de développement*. This, like other almost equally obsolete opinions of the medical profession, has obtained a firm hold of the minds of the public, and will retain it for generations after the advance of science has introduced other explanations of the nature of the disease. Believing, also, that it is solely a misfortune afflicting the infant anterior to birth, its production has been attributed, like that of other so-called malformations, to some occult maternal influence acting upon the embryo—to the strange ideas and freaks of imagination which occasionally affect pregnant women.

Many women who have borne children afflicted with talipes suppose that the cause of the deformity has been an ordinary fright received during pregnancy; others assert their conviction that a more alarming fright, consequent on having seen a person affected with a similar deformity, has produced the misfortune of their infant. I have, however, been informed by many mothers who have brought children affected with club-foot to me, that they neither recollected having had any particular fright, nor having been shocked by seeing distortion in any person during their pregnancy. Indeed, several mothers have mentioned that until they beheld the deformity of their infants they had never seen a club-foot, or had any idea of the existence of such deformity. I have met with exceptions in the cases of accomplished and talented females, who distinctly recollected having seen with pity during pregnancy suffering mendicants similarly deformed. A case recently occurred in which a lady gave birth to an infant affected with talipes valgus, which she referred to her having received a severe shock in traversing, whilst pregnant, the wards of a public hospital, on the occasion of the anniversary of the institution. Her attention was particularly directed to the case of a child recently operated on for a congenital deformity, and, as she assured me, she experienced a peculiar thrill from the contemplation of the child's condition. This was a case in which the reality of the mental impression could be easily substantiated; but it is unfortunate for the believers in the influence of such impressions in producing *a corresponding* deformity, that on further inquiry I ascertained that the case of deformity which the lady had witnessed was talipes varus, and not talipes valgus.

It is natural that a sensitive or sympathising female should not witness misfortune without shuddering, more particularly when pregnant, and therefore as club-footed persons are numerous in our streets, it is not surprising that a woman, on giving birth to a child afflicted with so great a calamity, should recollect having received a fright from this cause. Hence a number of such instances, however commonly received may be the opinion, tend little to confirm the idea that infants become thus affected because the parent had been shocked at the sight of this deformity. The opinion that a severe fright from any *ordinary* cause is capable of inducing club-foot in the fœtus is more reconcilable with the theory of the formation of this deformity.

We are ignorant of the existence of any direct connection between the nervous and sanguineous systems of the parent and those of the fœtus; nevertheless, as violent mental impressions exercise so powerful an influence upon the circulation of the parent, it is not improbable that sufficient derangement of that of the fœtus may be thereby produced, so as to injure the imperfectly developed and delicate brain and spinal cord of the infant, and thus induce imperfect development of other organs, and spasmodic contractions of various muscles, and consequent deformities.

External injury to the limbs during fœtal existence—such as pressure by the parietes

of the womb, or the limbs becoming entangled, and compressing each other—is the next cause more generally admitted as the source of these deformities. I shall briefly dismiss the consideration of this alleged cause. It will suffice to inquire—even if the relatively large quantity of liquor amnii in which the fœtus is submerged did not, at the early period of uterine existence at which these deformities are to be found, oppose an effectual obstacle to the exercise of pressure upon any portion of the fœtus apart from the remainder,—how is it possible that pressure of the walls of the uterus, a mechanical cause acting from without, should affect the fœtal limbs, by disturbing the arrangement and development of certain muscles and bones according to certain invariable rules, instead of acting in an uncertain manner, as external mechanical agents act when brought in collision with the living body? It is more in accordance with pathology to search for some cause resident within the organisation of the fœtus.

According to my views of the pathology of congenital distortions, they originate, for the most part, if not wholly, from disturbance of the nervous system of the fœtus, in whatever manner this disturbance may be induced. This is, then, the situation to refer you to the remarks in the lectures on contractures, on those distortions concerning which doubt may exist whether they are produced before or at the moment of birth, or within a very short period of that event. At the commencement of this lecture I remarked the identity of causes of *contractures* and congenital distortions; and, as I have stated, the former occasionally arise from accidental circumstances, such as repose of a limb in a certain position, it is proper here to inquire whether this cause may not sometimes operate in utero. The possibility of this cannot be denied, but observation of all the facts with which I am acquainted bearing on this question, leads me to the conclusion that such is not the cause of club-foot, club-hand, and the congenital distortions I shall have to consider.

AN

ANALYTICAL INQUIRY

INTO THE NATURE OF

THE PROCESSES OF DIGESTION AND NUTRITION,

WITH PRACTICAL DEDUCTIONS.

By George Ross, Esq., Kennington.

(Continued from p. 629.)

Summary of Conclusions.

We have now determined the production of lactic acid, during the digestive fermentation of sugar, to be a normal process; and we have further determined that this acid, together with the reduced principles of azotised aliment, is absorbed by the portal veins, and carried by them through the liver, and that from the secretions of this organ we chiefly obtain the oily matter that is the food for the lacteals. These several positions are demonstrated by experiment and calculation. We have now to show in what mode the liver acts to eliminate those secretions that are necessary for the production of fatty matter. This is necessarily a complicated subject, and uninviting to the general reader; nevertheless, it may be made clearly intelligible to any individual who is willing to bestow upon it a little attention, since the principles it comprises are few and well-determined.

The Experiments of Boussingault.

The experiments performed by Boussingault on the horse and cow, to which animals he gave a certain amount of provender, and afterwards examined the amount of their various excretions, are of considerable interest, though I conceive that they want that precision which might make them perfectly trustworthy as data for physiological deductions. In the first place, it must be a difficult matter, even with the utmost care, to collect these various excretions and examine them before they have undergone those internal changes which may alter the proportion of their various elements; this would especially obtain in the urine—the medium of the separation of azote. And, again, since these animals were kept in the stall, and were fed upon an amount of provender sufficient to maintain an animal in good condition under active exertion, we cannot expect that the amount of the excretions would bear a just relation to their amount in a natural state A horse, for example, doing his ordinary day's work, and that, perhaps, a hard one, would necessarily secrete more urine than a horse kept in the stable, and yet would be in as good condition as the other upon the same quantity of food as that given by Boussingault.

Boussingault performed his experiments with the view of determining whether or not nitrogen were received into the system by the lungs; but he found that the amount of nitrogen excreted from the system was about one-sixth less than that contained in the aliment. The conclusion is evident,—nitrogen could not be received by the lungs, though it might escape from them. Dr. Edwards has already proved to us that nitrogen is sometimes absorbed and sometimes separated by the lungs; therefore the mode pursued by Boussingault was only another plan of establishing a principle, but it does not determine the conditions of this principle. I cannot but believe that a horse, during the rapid breathing induced by a brisk gallop, might absorb nitrogen by the lungs, although during his repose he might

exhale this gas. During labour molecular action is much more active than ordinary, and, during many of these actions, oxygen is evolved; consequently, under exertion, more carbonic acid gas might be formed than the oxygen received by the lungs would account for; and hence, according to the theory of the diffusive volume of gases, nitrogen gas would be absorbed commensurately with the excess of carbonic acid gas exhaled. This is an explanation in accordance with the operations of nature, but whether correct or not, the fact, as established by Dr. Edwards, is unimpeachable.

The Amount of Nitrogen daily secreted by the Kidneys of a Horse.

Liebig has made some calculations in his "Animal Chemistry" with the object of proving that the elements of farinaceous food are entirely subservient to the purposes of respiration; his calculations are based upon the experiments of Boussingault. A horse may be kept in good condition upon fifteen pounds of hay and four pounds and a half of oats; this quantity of food contains four ounces and a half of azote. Now, supposing the horse to lose no weight, and his muscles to preserve their proper dimensions, it is manifest that, if nitrogen be not admitted by the lungs, the quantity of this element in the excretions should maintain an exact ratio to that contained in the food. I take another data from Liebig; he says a horse passes daily from the kidneys three ounces of carbon in the form of urea, and three ounces and a half of carbon in the form of hippuric acid. Now, what amount of nitrogen must be contained in these principles yielding this amount of carbon? Let us see.

			dr.	oz.
1 atom of urea	C 2=12 by weight		24	= 3
	N 2=28		56	= 7
	H 4= 4	×2	8	= 1
	O 2=16		32	= 4
For example.. 60 drachms			120	=15

Consequently fifteen ounces of urea would contain *three* ounces of carbon, the amount required, and *seven* ounces of nitrogen.

Again,—

			gr.	oz.	dr.	gr.
1 atom hippuric acid	C 18=108 by weight		1674	=3	3	54
	N 1= 14		217	=	3	37
	H 8= 8	×15½	124	=	2	4
	O 5= 40		620	=1	2	20
For example .... 170 grains.			2635	=5	3	55

Consequently five ounces, three drachms, and fifty-five grains of hippuric acid contain three ounces and a half of carbon — six grains, nearly the quantity required, *and three drachms, thirty-seven grains* of nitrogen; therefore the whole amount of nitrogen excreted by the kidneys would be *seven ounces, three drachms, and thirty-seven grains*. The quantity of nitrogen taken into the system is only four ounces and a half, even after a good feed, therefore; upon this calculation, there are about *three ounces of nitrogen excreted above the amount received by the food*. These data, I imagine, have regard to a horse under the ordinary circumstances of labour.

According to Boussingault's experiments, for the same amount of nitrogen taken, only a fourth, or rather more, appeared in the urine. The difference is amazing. But, as I have said before, the conditions under which this philosopher performed his experiments preclude our considering his results as a criterion of those occurring under the ordinary natural laws. There can be no question that the amount of nitrogen secreted by the kidneys must considerably vary under different circumstances of action; and therefore precision, in the present state of science, can be scarcely expected. Liebig, however, states his amount as a matter of fact, and there is no reason to question its truth. I believe that this amount of nitrogen may be secreted in combination with other elements, by the kidneys under the necessary conditions, for other reasons, which I shall now enter upon.

Amount of Nitrogen daily secreted by the Liver of a Horse.

Burdach states that the horse secretes thirty-seven pounds of bile daily, or about forty ounces of carbon, as Liebig has assumed. This amount, certainly, at the first glance, startles credence, but when considered closely is not so improbable. We may assume that the liver is an ever-active organ, and if it should secrete from its vast surface only four drops of bile every second, we should, in the course of twenty-four hours, obtain the quantity stated. If we regard any secretion as to its amount in the twenty-four hours, we shall certainly feel surprise at its great accumulation. But the bile is absorbed as fast as it is secreted, and therefore its actual accumulation is prevented.

I believe that this amount does not devi-

ate far from the truth for other reasons. There can be no question that the nitrogen entering into the composition of choleic acid is derived from the tissues; it cannot be derived from the food, because there is not a sufficiency in the provender of a horse to render the requisite supply, and at the same time to contribute to the reparation of the tissues. Well, then, Liebig's formula for the production of choleic acid from the tissues is this:—

	C	N	H	O
½ eq. of choleic acid ..	38		33	11
1 eq. uric acid.....	10	4	4	6
1 eq. ammonia.....			3	
	48	6	40	17

Hence we see that by the decomposition of fibrine five proportions of nitrogen are carried to the kidneys and one to the liver. A question now arises how much nitrogen must necessarily be associated with forty ounces of carbon secreted by the liver? Let us see:

			dr.	oz.	dr.
½ eq. choleic acid	C 38 = 228 by weight		319 = 40		
	N = 14	× 1⅜	19 = 2	3	
	H 33 = 33		46 = 5	6	
	O 11 = 88		123 = 15	3	
For example .... 363 dr.			507	63	4

Thus we find that forty ounces of carbon must be in combination with two ounces and three drachms of nitrogen, and, consequently, since there is five times as much nitrogen in the urinary secretion as in the hepatic, there must be eleven ounces and seven drachms of nitrogen passing through the kidneys of a horse daily; or, rather, let me say, this amount of nitrogen is prepared for elimination by the kidneys, for it is not certain that it is actually secreted. Now we have heretofore agreed that there are seven ounces, three drachms, and thirty-seven grains of nitrogen contained in the daily urinary secretion of a horse; *therefore there is an excess of four ounces, three drachms, and twenty-three grains of nitrogen that is retained in the system.* What becomes of this?

The Physiological Uses of Choleic Acid.

I am pleased to find that Liebig has dwelt upon the probability of the azotised principles of the urine combining with the non-azotised principles of our food. It is true that he regards the end of this union to be the production of bile; but I think that I have satisfactorily shown that the bile must be the product of systemic changes, and this conclusion is more in accordance with the general scope of that physiologist's reasonings. There is, certainly, in his speculations on this point, a want of clearness not elsewhere perceived.

I have before stated my opinion that it is the office of the liver to prepare the elements for respiration, and I adduced evidence in confirmation of this doctrine, which I will now endeavour to unfold more minutely. It is generally admitted that the horse exhales about seventy-nine ounces of carbon from the lungs daily; we must, therefore, account for the production of this amount. It is evident that the liver cannot supply the whole of this quantity, since forty ounces of carbon are the maximum of its secretion. If we deduct the elements of oily matter, the food of respiration, from choleic acid, a certain proportion of each element is left to undergo other changes. Thus:—

	C	N	H	O
Choleic acid	76	2	66	22
6 eq. of oily matter ..	66		60	6
Remainder..	10	2	6	16

Now, supposing forty ounces of carbon in choleic acid to be represented by 76, then 66 will represent the quantity prepared for respiration, which will be about thirty-five ounces, scarcely half of the amount required. The other half must be derived from the food.

The remainder, after the subtraction of oily matter from choleic acid, requires consideration. My object is to show that this remainder combines with the non-azotised principles of the food to form compounds of proteine. The readiest way to demonstrate this will be to approximate the elements of this remainder to those of fibrine, so that there shall be no difference in the amounts of nitrogen, and then observe the overplus of the other elements. In this way we shall ascertain the atomic composition of that substance, which is presumed to unite with the remainder, and forms fibrine. Thus:—

	C	N	H	O
½ eq. of protein....	16	2	12	4.7
Remainder.....	10	2	6	16
	6		6	+11.5

We thus clearly require the proportions of lactic acid, sugar or starch, minus oxygen, to unite with the products of the decomposition of choleic acid to form fibrin or albumen. I cannot conceive a plausible objection against the soundness of this conclusion, when we remember that the choleic acid is certainly absorbed and decomposed; that oil is one of the products of this decomposition; and that non-azotised food is always present in this situation in the necessary

proportions to combine with the remaining elements.

The Physiological Uses of Urate of Ammonia.

But further still: we have seen that there is an excess of nitrogenised principles formed by the decomposition of protein that does not pass through the kidneys. This, also, I conceive, combines with non-azotised aliment in a manner similar to the above. The nitrogenised principles in the urine of the horse are urea and hippuric acid, and there is an excess of four ounces, three drachms, and twenty-three grains of nitrogen to be divided between these principles, which exist in the urine in the ratio of sixteen to one, as regards the azote they contain. It is not probable, however, that they re-enter into combinations in the same ratio in which they are secreted, since it appears to be the office of the kidneys to determine the form of the secretion. Although these principles are found in certain proportions in the urine, it is doubtful in what state their elements exist in the blood prior to secretion. For our present purpose it is sufficient to know that there is an excess of a determinate amount of nitrogen in combination with a certain relative amount of their elements. At the point of the decomposition of the tissues, attended with the formation of choleic acid, urate of ammonia is set free; but we must remember that this urate of ammonia has received three atoms of water and one of hydrogen more than is complementary of protein; therefore,

	C	N	H	O
1 eq. urate of ammonia	10	5	7	6
Subtract 3 eq. of water			3	3
1 hydrogen..			1	
	10	5	3	3
⅝ eq. of fibrine	40	5	30	11.7
	30		27	8.7

Thus, again, we require and obtain the elements of starch, minus a certain amount of oxygen, to combine with the excess of azotised matter from the tissues to form a compound of protein.

Summary of Conclusions.

We have now solved, and I trust truly, an intricate problem, which, in few words, may be thus summed up:—*Choleic acid is, necessarily, a product of the decomposition of the tissues;* this principle is again decomposed, forming oily matter for respiration, and another azotised product, which is not excreted by the kidneys nor eliminated by the system in any other way, consequently, it forms combinations with the elements of farina, which are found to be complementary, with it, of the compounds of protein. The conclusion is obvious: farina is converted into protein. Again, by the formation of choleic acid, a certain amount of urate of ammonia, in excess of that secreted by the kidneys in others, is retained by the system; we have demonstrated that this excess cannot be formed into bile, and is not excreted in any way; therefore it recombines with non-azotised principles, in a certain ratio, to be re-assimilated; and the elements of starch afford the proportions required. Therefore, the same conclusion obtains as in the former case.

The Daily Amount of Waste and Reproduction in the Horse.

Moreover, this excess of azotised principles *must* be re-assimilated in the form of protein, or its compounds, to replenish the waste of the system. For example, there are fourteen ounces two drachms of nitrogen entering daily into the urinary and hepatic principles, and there are only about four ounces and a half of nitrogen received by the horse in the form of food. These fourteen ounces two drachms of nitrogen would be contained in five pounds, five ounces, four drachms, of fibrine; the nitrogen existing in this substance in the proportion of one-sixth, by weight. We must, therefore, have this quantity of fibrine produced to compensate for the daily waste. Hence,

	Oz.	Dr.	Gr.
Waste matter.....	85	4	
Received by stomach 4½ oz. nitrogen×6 .....=27			
In combination with the urate of ammonia .....=26	4		18
In combination with the remainder of choleic acid .....=20			
	73	4	18

We thus replenish the waste of the system minus twelve ounces, or about one-seventh of the loss; consequently, there is a deficiency of two ounces of nitrogen, which, at the early part of this inquiry, we found were eliminated by the kidneys in excess of that received as food. Still, these two ounces must be replenished, or the animal would lose weight; and, unless we suppose that in the particular instance from which our data of the secretions were taken, there was an excess of one half of the food given, we are constrained to admit that the nitrogen must have been received by respiration, a conclusion to which I strongly incline.

However, the principles I have striven to unfold will not be affected by minute differences. While the quantity of food taken and the amount of the secretions bear a disproportion to each other, even although the amount of this difference may considerably vary, the principles will remain intact. Nutrition must be regulated according to the same laws, though the conditions may be even reversed. It may appear that more or

less bile may be formed than I have quoted, or more or less azotised matter secreted by the kidneys; but, whatever quantity of bile may be eliminated, it will undergo the same changes; how much urea soever there may be formed in excess of that secreted, it will combine with the elements of other principles to form compounds of protein.

Pathological Deduction. — Laws of Periodicity.

If the premises are granted the conclusion is inevitable, as a process of rigid calculation. That the premises are just can scarcely be doubted, since they seem to hang so completely in dependance upon each other, and have, moreover, received the sanction of the ablest investigators. By the rules I have laid down and pursued we could easily determine the periods of renovation to which the system is obedient; for example, it being proved that a particular horse secretes a certain amount of azotised matter "per diem," it follows that a determinate amount of azotised matter must be decomposed to give the supply, and in proportion to the weight of the animal would be the number of days constituting the period of renovation. Thus, supposing an animal weighs five hundred pounds, minus the skeleton, and it can be proved that the decomposition of his tissues proceeds at the rate of five pounds daily, then, deducting eighty per cent. for watery particles from the gross amount, the azotised matter would be completely decomposed and replaced in twenty days.

We could thus determine, in fevers, the laws of periodicity, assuming that these laws are dependant upon esoteric changes, of which, I apprehend, there can be no rational doubt. Hence the more rapid the waste the shorter the period of change. This principle accords with daily observation. A quartan ague may change to a tertain or to a quotidian fever; but the danger is increased because the waste is greater, in consequence of the rapid actions going on in the system; on the contrary, if a quotidian assume the tertian or the quartan form, the danger diminishes, the fever abates, the urinary deposits are more scanty, and a speedy recovery is anticipated. I have not the slightest doubt that we shall, in a very short time, be able to determine with precision the periodic accessions of fevers and other analogous diseases, by simply attending to the amount of the azotised secretions. This will constitute an important epoch in the annals of medical science. Medicine will then no longer suffer repudiation from the temple of science on the ground of its uncertainty and the impossibility of resolving its laws; far otherwise, its hidden mysteries will be revealed, the whole machinery of life and disease will be made manifest, every power and every action will be accurately known and estimated, and the practitioner, no longer guessing at causes by the uncertain character of transitory symptoms, will learn to apply his remedies in accordance with the established operations of nature and the invariable tenor of her laws. No method, other than the numerical, will ever confer this character of precision on medicine.

I am sensible of being at issue with some of the ablest medical inquirers in the doctrines I have laboured to elucidate; albeit I have adopted the same principles of reasoning and analysis which have been so successfully applied to other departments of medical research. The public mind, in this, as in all other cases, must be the judge; the evidence is fully and fairly stated.

(To be continued)

FATAL CASE OF VOMITING AND PURGING.

By J. Leigh, Esq., Surgeon, St. Ives.

Case.—E. G., of rather small stature and pallid countenance, and subject to a morning cough, aged 48, was taken ill on Friday, the 1st of December, 1843. She complained of pain in the stomach and faintness; twenty drops of laudanum were given, which, she said, made her worse, and she went to bed. She was not seen by any medical man the next day, but on the following day she was visited by a general practitioner. She was vomiting everything she took, and complained of pain in the stomach, fluttering at the heart, and faintness. Her pulse was very weak, indeed, scarcely perceptible, and her breathing was catching; her thirst was great, and she drank perpetually, principally, she said, to prevent her heart stopping, for when she vomited her heart beat better, and her breathing was slightly relieved for a short time. At night her feet got cold, and she seemed collapsing. A blister was applied to the stomach, which made her breathing more difficult she said, and she was sorry she had had it on. Various remedies were tried to relieve the sickness, but without any benefit: the effervescing draught, laudanum, brandy, and wine, as she was so faint and collapsed. The hands presented the appearance of a person who had been washing,—in a degree like what was seen in the cholera of 1832. She was seen by three medical men, but no one suggested bleeding on account of the almost imperceptible pulse, and great faintness and general collapse. In this state she continued till Sunday, the 10th of December, thus being ill upwards of a week. Purging of dark-coloured stools came on the fourth day, and continued involuntarily to the last. The matter vomited after the fourth day was coffee-coloured.

Latterly she complained of pain in the throat; her mind was clear the whole time. What was the cause? Dissection showed

the stomach inflamed, and the heart enlarged, and the liver somewhat indurated. Lungs healthy, and bowels natural. One individual, after the examination, was seized with vomiting, and his hands broke out in painful sores, which did not readily heal. The others, however, were unaffected, indeed those who did most to the body. A fortnight before the fatal attack the poor woman had a slight one, which confined her to her bed a day or two, and which she declared she never got over, although she lived as usual in the family. What was the cause of death? We repeat the question, because the case was a novel one to her medical attendant. The peculiarities of this case were the faintness, the palpitation, and the catching for breath, almost like a hydrophobic patient. What would have been the proper treatment? Should bleeding have been practised notwithstanding the low and almost imperceptible pulse. The blister evidently did harm, yet we know what a valuable remedy it is in some cases of incessant sickness. The case somewhat resembled a fatal case of cholera, but here were bloody vomiting and bloody stools. A hot bath was proposed but refused on account of the faintness. The patient thought she should die in the bath, and perhaps she might, so feeble was the action of the heart. Was the inflammation of the stomach sufficient to account for death?

It ought to be mentioned that from the attack a fortnight before she recovered with nothing more than a dose of opium, and keeping her bed for a day or two. It appears, then, she was sick, but the palpitation and faintness were the prominent symptoms presented to her medical attendant.

RUPTURE AT THE JUNCTION OF THE AORTA WITH THE HEART.

Communicated by W. Ryan, Esq., Sutton Coldfield.

In consequence of an order from our warden and coroner, Baron D. Webster, Esq., I made a post-mortem examination of the body of Eliz. Brooks, aged 40, who died suddenly. Deceased had been left in the house, peeling potatoes, and on her sister's return after half an hour she was found dead, having fallen forward. There was excellent muscular development, and a slight contusion on left temple, caused apparently by falling forward powerlessly. She had long complained, and been under much ineffectual medical treatment for intense "pain in the stomach," from which she suffered much. She also had giddiness, and sometimes difficulty of breathing. Viscera of abdomen healthy. Scalp, coverings and substance of brain congested; about three drachms of serum in left ventricle. On removing the sternum found adhesions. The lungs did not collapse, were easily broken down, and now the cause of death was quite apparent, the pericardium being completely filled with blood in a fluid state, excepting about a three-drachm clot at the bottom. Having removed seven or eight ounces a rupture was found at the junction of the aorta with the ventricle towards right side, and a thin layer of coagulated blood between the internal and external serous membranes. The rupture was somewhat oblique, and from the inside I was enabled to pass the handle of the scalpel into the pericardium. There was considerable hypertrophy of the heart, which was not much loaded with fat. No ossific deposits nor obstruction to the circulation in the aorta.

ST. THOMAS'S HOSPITAL.

OPERATIONS FOR LITHOTOMY, NOVEMBER 11 AND 18, 1843.

Case 1.—The subject of the first of the two following cases was a young man, of healthy appearance, aged 17, by name Joseph Burgess. He stated, that from three and a half to four years of age he had been subject to very great pain in making water. Micturition required a good deal of straining, and there had been occasionally a sudden stoppage of the stream. At these times he had much itching and tingling at the extremity of the penis, obliging him to pull and squeeze it violently. The pain has been generally aggravated by riding in a cart or running. These symptoms have not, however, been continuous. They have come on, as it were, in fits, about once a-year, and generally in the autumn. In the intervals he is free from uneasiness, except occasionally from violent exercise, and attacks of sudden stoppage of the urine, which have continued for a few days without much pain. On the 30th of August, 1843, he was obliged to leave off work on account of an attack of pain and difficulty of making water, which continued with much severity up to the 30th October, when he was admitted into the hospital, under Mr. Green. He had on one or two occasions passed blood in small quantities.

On admission, he had great difficulty in making water, and on having succeeded, after much straining in doing so, he feels as if something rolled away from the orifice of the bladder, producing at the same time a sensation of scratching and aching. When moving he frequently feels, also, the stone rolling about in the bladder. He was sounded by Mr. Solly, who detected a calculus, which, from the sweep of the instrument, seemed from one and a half to two inches in length. The urine was analysed on the 31st, and found to contain albumen and phosphate of lime.

The operation of lithotomy was performed by Mr. Solly, on the 11th November, at one o'clock.

The first incision was made with a double-edged scalpel, through the integuments and superficial fascia, and then carried on into the membranous portion of the urethra. Blizard's knife was then inserted into the groove of the staff, and carried forwards through the prostate into the bladder, which was further divided on the withdrawal of the instrument. The stone was easily seized on the introduction of the forceps, but on attempting to withdraw it, seemed to hitch against the opening. With a little manipulation, however, it was soon extracted. The calculus was of very peculiar form. It was about an inch and a half in length and one in breadth, with a contraction like a neck near one extremity, surrounding which were five small knobs, about the size of small peas. It was these knobs which had hitched against the sides of the opening in the bladder. The operation lasted about four minutes. The stone weighed seven drachms, two scruples.

Nov. 18. Has been going on well in every respect since the operation. Nearly all his urine passes through the urethra.

Case 2.—Mr. Solly performed the operation of lithotomy on another case, Nov. 18, 1843. The same instruments were employed, and the same mode pursued as in the case of Burgess. Two stones were extracted. Both were rather soft. The first, which was about an inch in length, was crushed by the forceps; the second was somewhat smaller. The operation lasted about two minutes. After the removal of the calculi, the operator found, on introducing his finger into the bladder, that there was a small quantity of calcareous matter embedded in the prostate. It was firmly impacted, and not removable by the finger-nail. During the operation there was a good deal of hæmorrhage from the transverse perineal artery and other smaller branches in the neighbourhood. These were most probably enlarged by the chronic inflammation under which the patient had long suffered. The facts of the case are interesting. They are as follow:—

Henry Tabernacle, ætat. 32, was admitted into St. Thomas's Hospital, August 22, 1843. He is a married man, by trade a hawker, has no family; countenance emaciated, pale, and anxious; he has been afflicted ever since childhood. In January, 1841, he had a fall, and slightly hurt his loins, and in the following April, on returning to his employment, felt himself much worse, being unable to pass his water except in drops; he then took to drinking gin, thinking that likely to assist micturition, but soon found that the pain, after making water, was increased. On the 17th of May, he went into St. Bartholomew's Hospital. He was sounded by Mr. Vincent, and a stone detected. About two months after his admission that gentleman performed upon him the operation of lithotrity. He underwent the same operation five successive times, and left the hospital in September. In about five weeks, he again went into the house, was operated on about four times, and left in June, 1842. He was operated on again in October of the same year, and a large quantity of calculous matter extracted. Analysis showed it to consist of uric acid, urate of soda, and phosphate of lime. After the last operation, he felt much better, and so continued for about two months. In April, 1843, he was made an out-patient at St. Bartholomew's, when he was ordered infusion of pareira brava; compound rhubarb pill, and extract of henbane, of each five grains; mix for a dose to be taken every night. In August, he came under Mr. Solly's care at the General Dispensary. He then complained of severe pain after making water, with pain in the loins and along the lower surface of the penis. There was diarrhœa and loss of appetite; the urine, which was very alkaline, and containing a large quantity of mucus, presented, on analysis, the earthy phosphates and albumen. He was ordered infusion of buchu, an ounce and a half; diluted muriatic acid, twenty minims; tincture of opium, twenty minims; mix for a draught, to be taken immediately. Twelve leeches to the perineum. Mercury with chalk, one grain; powdered rhubarb (burnt), three grains; mix for a powder, to be taken every night. At first he was a little benefited by this treatment, but the amendment did not last long.

On coming into St. Thomas's Hospital, the same plan of treatment was adopted, with some slight improvement in his general health. It was determined, however, at the suggestion of Mr. Green, that a trial should be mode of the plan proposed by Dr. Hoskyns, of Guernsey, for dissolving the stone. The bladder was first gently injected with warm water, in order to accustom it to the operation. The day following, a solution of acetate of lead, one grain in an ounce of water, with five minims of acetic acid, was injected. The first injection was borne pretty well. The following day it produced a very uncomfortable feeling in the bladder, not amounting to severe pain, but producing faintness. The same plan was persevered in, however, for about a week, but the bladder ejected it, through the catheter, immediately it was thrown in. This mode of treatment was, therefore, abandoned. Recourse was again had to the dilute acids as internal medicines, and as his general health had slightly improved, and his sufferings continued extreme, it was determined, in accordance with his own desire, to perform the operation of lithotomy.

After the operation, Mr. Solly addressed a few words to the students, and drew their attention to the case, as being one of peculiar

interest. The patient, he said, had been afflicted since a very early period of his life, and had suffered a great deal. He had undergone, in another hospital, the operation of lithotrity ten times. There was extensive disease of the mucous membrane of the bladder, and some indications of disease of the kidneys. These circumstances, combined with the weakly state of the man, rendered it a very unfavourable case for operation. The pain and misery, however, which the man was undergoing, the certainty of a speedily fatal termination to his sufferings if the stone was not extracted, and his own anxious desire to have it performed, clearly pointed out that, in the hope of prolonging life, the path of duty was to operate.

At about four o'clock, p.m. (three hours after the operation), he complained of pain in the penis, which he described as if greatly distended. He expressed a desire to make water by the urethra. This however, suddenly ceased, and a considerable gush of urine took place both by the urethra and wound. On lifting his shirt, he was found to have passed a large clot, with some fluid blood and urine, from the urethra. Blood oozed also from the wound. This continued to increase, but no pulsating vessel could be detected by the eye. Mr. Solly was immediately sent for. In the interim the wound was plugged with lint. This, however, proving inefficient, the plug becoming saturated, and blood flowing rapidly, the lint was withdrawn. Two fingers were introduced a considerable distance, and firm pressure made against the tubes ischii. This, after some time, proved effectual, but not before the patient became somewhat faint. The hæmorrhage had in great measure ceased on Mr. Solly's arrival, who ordered the pressure to be continued. This was kept up until six p.m., when the bleeding had entirely ceased, and showed no tendency to return on the withdrawal of the fingers. On account of the faintness he was ordered to have some gin and water, with a small piece of dry toast. At eight, p.m, he felt more comfortable, had had no return of hæmorrhage, but still felt rather faint. Tincture of opium, forty minims. At a quarter past twelve, having had no sleep, the opiate was repeated.

19. Nine, a.m. Had dozed frequently during the night; feels comfortable; urine has passed freely by the wound. About mid-day he was rather feverish; tongue coated with a brown fur; skin hot and dry; feels thirsty, and has pain in the abdomen, increased by pressure; wound rather swollen about the edges, and painful to the touch, but with little redness.

Nine, p.m. Pulse rapid; countenance anxious; tongue furred in the centre; complains of pain in the abdomen, a little above the vesical region; urine does not flow freely. Compound senna mixture, one ounce; tincture of opium, five minims; immediately. Soda water occasionally.

20. Nine, a.m. Better; countenance more natural; pulse less rapid, with more power, and becoming slower as you continue to feel it; wound healthy, smarts when the urine flows through it. Has had an excellent night—slept nearly six hours, without any opiate, and only waking for a minute or two occasionally. Bowels have been relieved four times. Mutton-chop; beef-tea occasionally; soda water.

Nine, p.m. Pulse quick, without much power; countenance rather anxious; bowels freely open; evacuations healthy; has slight pain about the umbilicus. To have a little gin and water.

21. Nine, a.m. Bowels having been freely opened, has passed a restless night; stools loose and watery, but of healthy colour; countenance still anxious; pulse quick. There is no pain in the vesical, and less in the umbilical region. Tincture of opium, one drachm; compound chalk mixture, one ounce; aromatic confection, one drachm; tincture of catechu, one drachm; immediately. Mustard-poultice to the abdomen; brandy, one ounce, with ground rice.

Three, p.m. Better; no stool since last report; is now almost free from pain.

22. Has passed a very comfortable night, and is in every respect better. From this period he went on progressively improving, and left the hospital perfectly well.

LETTER FROM DR. COPLAND ON CROUP AND LARYNGISMUS STRIDULUS.

To the Editor of THE LANCET.

SIR,—I have not until now perceived that Dr. Golding Bird is reported (in your number of the 27th ult.) to have said, in a discussion on croup, at the Medical Society of London, that Dr. Copland had confounded together croup, pellicular inflammation of the throat, and laryngismus stridulus. Now, so far from this being the case, it will be found, upon referring to the articles on these diseases, that I have not only carefully distinguished the several states of croup, both in my description and in my diagnosis, but I have treated of these diseases under different heads. When describing the several varieties of *consecutive*, or symptomatic, croup, the extension of inflammation, with pellicular exudation, from the fauces and pharynx to the larynx and trachea, could not be overlooked; and this disease, which is more fully considered under a different head, was, therefore, cursorily noticed in connection with croup, or noticed so far as the croupy complication of it is concerned. Laryngismus stridulus is treated of in its

appropriate place, it being a distinct affection from any of the states of croup, and symptomatic of very different pathological states. Dr. G. Bird will find this affection described under the article "*Larynx*," and by the name of "Spasm of the Larynx," or "Stridulous Laryngic Suffocation." It is no further noticed in the article "Croup" than as regards the diagnosis, in which chapter of that article he could have seen this particular topic discussed, and reference made to "*Larynx*." I do not accuse Dr. G. Bird of intentional misrepresentation, but I am desirous of removing the misapprehension he has fallen into, as well as of counteracting the effect his representation may have on the minds of your readers. Having been physician to the Infirmary for the Diseases of Children during fifteen or sixteen years, it must appear somewhat odd if I should have confounded together diseases so different from each other as those in question, and which were not very rarely observed at that institution. I am, Sir, yours, &c.,

JAMES COPLAND.

Old Burlington-street,
Feb. 12, 1844.

THE LANCET.

London, Saturday, February 17, 1844.

THE extraordinary, the unprecedented, success which has attended the publication of THE LANCET, was sure to produce a host of attempted imitations of that Journal. The plan of our undertaking was novel; the vast field into which we plunged was unoccupied by a medical press; the Augean stables, which we undertook to assist in cleansing, had been accumulating their noxious deposits for centuries. The novelty of the scheme, and the utility of the enterprise, were at once acknowledged by the members of our important profession.

The conflicts in which we were engaged for a series of years (and the fight, we regret to say, still continues, for the *casus belli*, though mitigated in force, is not yet destitute of incentives to hostility,) were often of a perplexing, perilous description; but, we believe that it cannot be alleged by any one, unless he be a malignant slanderer, that we ever blenched or quailed before the innumerable difficulties by which we were surrounded, or the obstacles which chicanery and corruption raised to impede our progress. From the first, THE LANCET was, and it is still, an independent work. The plan and the title were his whose hand traces these lines; the integrity of the property is unbroken, and he who was entitled to call the work his own at the first hour of its existence, still regards and controls his mental offspring with paternal care and anxiety. If, therefore, he be entitled to approbation for any merits which THE LANCET may have exhibited, he is, at the same time, both legally and morally responsible for the contents of that publication. In connection with that responsibility—great as it has often been—the name of the Proprietor and Editor of the work has been boldly and unflinchingly displayed.

The constant avowal of personal liability, as Editor of the work, in addition to the legal responsibility of Proprietor, has not been without its perils; but the reward of a chivalrous daring has more than compensated for the evils of the risk. The determination to write openly, and not in ambush, or behind a mask, was influenced by what we believed to be a sound principle in periodical literature, namely, that the best safeguard for society in the conduct of the press is the *personal* as well as the *legal* responsibility of the parties by whom it is controlled.

Numerous as have been the attempts to successfully imitate our work, few have endeavoured to follow the example that we have set them, of openly incurring a moral and personal responsibility in the execution of our labours. Crowds of weekly medical journals have appeared, and disappeared after existing for a few weeks, months, or years, since THE LANCET was first published, the names of the owners of them having been seldom known until they were proclaimed to the world through the Bankrupt and Insolvent Courts; and of the large number that at different times have issued from the press,

only one* has realised to its proprietors the smallest modicum of profit, and that one belongs to, and is published by, Messrs. LONGMAN and Company, probably the most influential and powerful establishment of its kind in Europe. There are two others still printed; the exchequer of one of them being in a rapid state of decay; that of the other possibly in a condition of bankruptcy. These statements have been forced upon us by the dishonest conduct of the former journal, and the really infamous behaviour of the latter. In both, innumerable falsehoods have been published with respect to the sale and circulation of THE LANCET. In addition to these favours, attacks upon the private character of the Editor have been somewhat lavishly bestowed.

Well knowing the sagacity and honourable character of the members of the medical profession,—relying upon their observation of our steady adherence to the principles which we first pronounced, and our consistent and determined advocacy of the cause of the SURGEONS of this empire engaged in the GENERAL PRACTICE of their profession, we have not on any occasion bestowed even a page of commentary on the puny, malignant, and dastardly efforts of our slanderers. A circumstance has, however, now occurred which calls upon us to break the silence which we have hitherto maintained.

The readers of THE LANCET have been informed that a "public meeting" of medical practitioners was recently held at the Crown and Anchor Tavern, and a condensed report of the proceedings was published in the columns of our Journal for February the 3rd. In THE LANCET of the following week we expressed our regret that the meeting had been so hastily convened; and we intimated, at the same time, that there would probably be a general meeting of the profession in London at no distant period. At the public meeting to which we have referred, a committee was formed, which still holds its meetings at the Crown and Anchor Tavern.

* Even that journal was started "by subscription," but it is a respectable work, and is issued under respectable authority.

On Wednesday, the 7th of February last, six members of that committee, consisting of Dr. LYNCH, Dr. WILSON, Mr. W. SIMPSON, Mr. HARVEY, Mr. RUGG, and Mr. J. SIMPSON, honoured Mr. WAKLEY with a visit at the House of Commons. Having handed their cards to him, he invited them into one of the committee-rooms of the house, where a perfectly friendly conversation was held amongst all present on the subject of medical grievances, the new obnoxious charter, the late meeting, the notice of it in THE LANCET, and the projected meeting. At the conclusion of the interview, which lasted a considerable time, it was agreed that the parties should assemble again on the following Monday evening. We can unhesitatingly state that we were exceedingly gratified with the interview, although no notice of the intended visit had been sent to us. It was pleasing to find that half-a-dozen gentlemen, evidently influenced by a bold and enterprising spirit, had, unceremoniously, and without formality, favoured us with a visit, for the purpose of considering the vitally important question of MEDICAL REFORM. Before separating it was agreed by all present at the interview that no public notice should be taken of the conversation until after a second meeting had been held by the same parties.

Thus stood matters until mid-day on Saturday last, when we received the following communication:—

"High-street, Bloomsbury,
"Feb. 9, 1844.

"My dear Sir,—It is my duty, as Secretary to the Medical Committee, to communicate to you the following resolution, and also to state that the report of the proceedings of the committee was not obtained from me, either officially or otherwise. I need scarcely observe, that myself and others never could have contemplated the attack made *personally* on you in any publication professing to be friendly to our cause. I shall see you, according to appointment, on Monday evening, and should you and I at any time differ in opinion, I am confident you will never experience anything unmanly or ungentlemanly at my hands, or with my knowledge.—I am, yours, most obediently,

"W. SIMPSON."

"Crown and Anchor, Feb. 9, 1844.

"Dr. Wilson in the chair. The sub-committee met at eight o'clock; present, Mr. Walker, Mr. Hunter, Mr. Simpson, Dr. Lynch, Mr. Cooper.

"A member called attention to the leader of 'The Medical Times,' of the 9th instant,

"The committee were unanimously of of opinion, that the secretary be requested, and he is hereby authorised, to disavow, on the part of the committee, any concurrence with, or approval of, such articles in any publication whatever.

"W. SIMPSON, Hon. Sec."

Surprised, beyond expression, at the intelligence that was thus conveyed to us, and not by any means comprehending the full import of it, we immediately procured a copy of the print called "The Medical Times," when we discovered, with feelings of disgust and indignation, that there had been recorded in that imbecile miscellany a report, purporting to contain an account of the conversation at the interview in the House of Commons.

In addition to the disclaimer which we have just inserted from the gentlemen of the committee, we have been furnished with the following denial of the accuracy of the report in question, by five of the gentlemen who attended at the interview, the sixth being absent from London:—

"We, the undersigned, beg to state that the version of the account of the conversation which appeared in 'The Medical Times,' with regard to Mr. Wakley, is not correct; and, moreover, that we waited on him by our own agreement, and not at the request of the Committee.

"H. H. RUGG,
"WM. SIMPSON,
"WM. HARVEY,
"JORDAN R. LYNCH,
"JOHN WILSON."

To the whole of these gentlemen we return our hearty thanks for the spontaneous act of kindness and justice which they have discharged on this occasion. They have thought it to be their duty to disclaim the acts of a person with whom it must be a dishonour to associate in any capacity, and completely relieve themselves from the imputation of suspecting even the least reprehensible of his guilty purposes. They repudiate the conduct of a knave, and, by implication, evidently denounce him as a mercenary reviler. We have sometimes been asked why we omitted to notice the libels against the private character of the Editor of this work, which we were informed often appeared in the "leading articles" of the "Medical Times." Our answer always has been that we did not believe that such a trashy production was read by the members of the profession; and, secondly, that the motives of the slanderer were so palpably obvious, and his stupidity so thoroughly apparent, that if the rogue were allowed rope enough he was sure to cheat the executioner at the Old Bailey. The odious but useful labour is completed, and the general indignation which every medical practitioner has expressed against the atrocious libeller, whoever he may be, has impressed upon the character of the periodical in which he writes a full measure of his own personal infamy.

THE Committee of the Medical Profession sitting at the Crown and Anchor is conducting its labours with great zeal. Considerable tact is becoming apparent in its proceedings, and the various ASSOCIATIONS appear to be willing to recognise it as a lever for working out some important result in the great cause which we all have at heart. AN OPEN MEETING of the Committee is to be held at the Crown and Anchor, on Wednesday evening, the 21st of February, on which opportunity all medical practitioners who are disposed to assist in resisting a further aggression on the rights of the profession are invited to attend. Mr. WAKLEY is one of the invited, and he will do himself the honour of being present on that occasion.

As we stated in our last number, on examining the various elements of which the hydropathic treatment is composed, we find that they may be reduced to the following:—The temporary application of cold to the skin after copious perspiration has been produced without artificial heat; total abstinence from all stimulating fluids; simple diet; early hours for rising; and regular bodily exercise.

With the exception of the first, the one, it is true, on which the greatest stress is laid, all these means of treatment can only be considered as hygienic agents; and if we analyse carefully the sweating and bathing processes, we find that they are merely the application to disease generally of agencies the use of which has been, from the earliest times, familiar, not only to the profession, but to the public at large. To appreciate correctly the influence of the hydropathic

medication we must recal to mind the physiological action of cold water on the human frame. Immersion in cold water produces a sudden shock on the nervous system, and is immediately followed by contraction of the cutaneous capillaries and retrocession of the blood from the external to the internal regions. The nervous system, however, soon rallies, and the heart impelling the blood with renewed vigour, it is returned to the periphery of the body, distending the capillary vessels which it had previously abandoned, and giving rise to an universal glow or sensation of warmth. The intensity of this *reaction*, as it is called, depends on various causes, one of the most important of which is the state of the skin previous to immersion. If its circulation is active and vigorous, and if, consequently, the surface of the body is warm, the reaction is certain, prompt, and vigorous. If, on the contrary, the circulation of the skin is sluggish, deficient in energy, the reaction is incomplete, or may be absent entirely. In this case the person who has been immersed, on getting out of the water, shivers, feels an universal sensation of cold, pain in the chest, cephalalgia, and may not experience reaction for some minutes, or even hours.

The above principle, that the intensity of reaction after the application of cold depends chiefly on the previous vigour of the cutaneous circulation, has scarcely been sufficiently appreciated by hygienists. It is this principle which explains the innocuity of the cold-bath as used by hydropathists in *some* diseases. By wrapping their patients up in a blanket, or in a wet sheet first and then in a blanket, as soon as they awake in the morning, when they are warm, and the circulation of the skin is active, perspiration is easily produced; and it is whilst they are in this state, whilst the cutaneous circulation is the most vigorous, that they are plunged into cold water. As might physiologically be expected, the reaction is generally prompt and energetic, and thus the tonifying effects of the cold-bath are often obtained with patients who would not have had sufficient warmth of skin or vital energy to react against the cold-bath, as usually employed.

But this mode of administering the cold-bath and the physiological data on which it is justifiable, are not new to the profession. With the exception that before PRIESSNITZ the sweating stage was produced by artificial heat, which, in our opinion, modifies but little its physiological action, it has been known and put in practice from the remotest antiquity up to the present day. The Romans of old were in the habit of sweating in the *sudatorium*, and of then throwing themselves into cold water. The Russians and Finlanders of the present day remain for many minutes exposed to vapour heated to 150° Fahr., and then throw themselves into water just above the freezing-point, or roll themselves in the snow. Even in our own country, where such practices are not in use, it is generally understood that a person may throw himself into cold water when warm or perspiring from exercise without the slightest danger. Indeed, if ladies catch colds, pneumonias, &c., by coming out of ball-rooms, and heated localities, a circumstance which is much less frequent than is generally supposed, it is not because they come out of a very warm locality into a cold one, for the warmer the skin is the more able is the economy to resist the action of the cold, but because small portions only of the cutaneous surface, the neck and shoulders, for instance, are exposed for a considerable length of time to the action of the cold air. How seldom do we hear of men, whose clothing is such as to place the entire economy under the same hygienic condition, experiencing any inflammatory attack from such a cause. In northern climates, where the houses are heated in their totality, attacks of bronchitis, laryngitis, &c., are, we believe, much less common among the higher classes than in our own country, although the cold out of doors is much more severe. The reason is that the skin being thoroughly warmed when they leave their dwellings the system is much

better able to resist the action of the cold, to react against it.

If the view we have taken of the action of cold water on the skin is correct, and it is the one entertained by all the first physiologists and hygienists of the day, the sweating and bathing processes of the hydropathists are reduced to little more than a novel mode of applying the cold-bath and of ensuring its efficiency in delicate constitutions. It is merely the exaggeration of the cold sponging in the morning, on rising warm from bed, which medical men so often recommend to their patients.

As to the abundant perspiration, respecting which so much is said, and which is stated to be so extremely efficacious, it is, in reality, of very little importance whether it be produced by rolling a person up in blankets, and thus arresting the natural evolution of heat from the skin until that organ relieves itself by abundant perspiration, or whether it be produced by the direct application of moisture and heat combined in the shape of heated vapour. The effect, as regards the elimination of a certain proportion of the animal fluids through the medium of the skin, is the same. And yet these are the novelties brought forward by the hydropathists,—novelties as old as the art we profess,—novelties, the nature and action of which every medical man has learned as a part of his professional education.

The means of treatment which constitute hydropathy, considered as a portion of our therapeutical arsenal, are powerful medical and hygienic agents, but can only be adopted as a panacea for all diseases by the ignorant public, or by such medical men as wish to raise their own fortunes on the credulity of others, or are destitute of that valuable faculty which we alluded to in a former number—*common sense*. By attention to diet, by moderation in the use of stimulants (or in some cases, by abstaining from them entirely), by exercise, by early rising, by cold ablutions, we preserve health; and in a long series of dyspeptic and nervous disorders, occasioned by town life, in which the stomach is often overloaded with food, stimuli are taken in excess, exercise is neglected, late hours are kept, and the mind is continually on the stretch, attention to these points is equally successful in restoring lost health. Cures are, indeed, every day effected by all medical men who practise extensively our profession, through the action of the above means, and that without their demanding of their patients the sacrifice of their residence or occupations, and without anything more than a placebo in the shape of medicine being administered. Is it then extraordinary, that when we add to their agency freedom from the harass of business, the novelty of a picturesque highland residence, and a military-like regularity in the execution of the plan laid down, that many thus affected should rapidly recover at Graefenberg, Marienberg, Malvern, or other similar places. We must not also forget that the hydropathists have many advantages in the application of their hygienic rules over regular practitioners. They *make* their patients get up at five, abstain from stimuli, take long walks, &c., whilst members of the faculty in general can only *advise* those who place themselves under their care to follow such a course; for they have not the halo which public opinion gives to novelty and more especially to all panacea-mongers. PRIESSNITZ, the peasant, is said to rule over lords and ladies, at Graefenberg, with a rod of iron. His very nod is obeyed by his patients, whom he never deigns to acquaint with the motive of his prescriptions. What would a West-end fine lady say of her physician, if he *insisted* on her getting up at five o'clock, taking a cold bath, and then walking round Hyde Park a couple of times before breakfast? He would be called a fool and dismissed. But the same lady will submit to this, or anything else, if it comes from a MORISON or PRIESSNITZ, or even from one of their more humble followers.

No doubt, in cases such as those we have just mentioned, the cold bath, which Dr.

Forbes justly calls the most powerful tonic of the Pharmacopœia, is a valuable adjuvant, but we much doubt whether its efficacy is much increased by the immoderate sweating that precedes it. It appears that in a great number of cases, after a certain time, numerous boils and abscesses appear on the skin, and in the subcutaneous cellular tissue. These are appealed to, as indicating that the peccant humours of the blood have made their way to the surface of the economy; but every rational medical man must give a very different interpretation to the manifestation of such phenomena. They can, in reality, only be considered as the result of repeated and long-continued irritation of the skin, and must do harm by their reaction on the system generally.

There is another class of diseases in which the hydropathic treatment is calculated to be beneficial, viz., in rheumatic and gouty engorgements of the fibrous tissues of the joints. In these cases, it is more especially the sweating and bathing that act on the engorged tissues, gradually promoting a healthier action of the absorbents, and favouring the resorption of the effused lymph. In gouty constitutions, the hygienic treatment resorted to is also precisely the one calculated to modify the constitutional diathesis. If we could always persuade a patient who consults us for a first fit of the gout, to drink water for the rest of his life, to take exercise, and to diminish by half the amount of animal food he is in the habit of taking, there would be but little chance of a return of the attack. But although we think hydropathy harmless, or even beneficial, when directed against the sequelæ of gout and rheumatism, we are very far indeed from admitting this to be the case during an acute attack of gout or rheumatic fever. The experience of ages tells us that in such cases there is a general inflammatory diathesis which explodes in the local inflammation, and that if repercussion of that local inflammation takes place, there is danger of the inflammatory action settling on some vital organ, and terminating the life of the patient. It is generally acknowledged to be of such extreme importance to prevent this translation of the disease from the extremities, that no physician in his senses would ever dream of preventing, by cold local applications, the manifestation of an incipient attack of gout, and would even be very careful how he applied cold to a person subject to gout in the interval of the attacks. This remark applies more especially to persons advanced in life, as they with difficulty resist even common inflammatory attacks of the more important viscera. There can be no doubt that Sir F. Burdett's death is to be attributed to the neglect of this pathological principle. In nearly all acute diseases we should be inclined to consider hydropathy a most dangerous practice.

The practice followed by most of the professed hydropathists, as compared with their pretensions, stamps them as impostors. They profess to be able to treat and to cure all diseases by means of "the water-cure," and at the same time it is notorious that they select their cases, principally choosing the forms of disease we have enumerated as likely to be benefited by the plan of treatment which they follow. It is a general remark among those who have written on the subject that the persons who sit down to the "table d'hôte" of the hydropathic establishments on the continent, are, generally speaking, as healthy and cheerful a set of people as you could wish to meet with. Dr. Ehrenberg, the hydropathist who was refused a licence to practise by the French Academy, states in one part of his work. "I expected "to find at Graefenberg a reunion of the "most varied and severe maladies, and on "every side I only saw robust bodies, and "fresh countenances. It was only several "months afterwards that I perceived some "who presented external traces of a deep-"seated vital affection." Priessnitz exercises great discrimination in the choice of his patients, refusing those who appear to present traces of deep-seated disease. We believe his example is followed by his English disciples; indeed, there cannot be a

greater proof of the fact than the printed assertion made by one of them, that out of five hundred patients he has not lost one.

Hydropathy, which is now in the zenith of its fame, will have the fate of all other medical impostures. In the course of a few years it will be abandoned by the public for some other novelty, and this will continue to be the case until the Legislature steps in to shield the public and the profession from the inroads of quackery.

We think we cannot better close our remarks on hydropathy than by quoting the conclusions to which the French Academy came on the Government referring to it as to the propriety of allowing a hydropathic establishment to be formed in Paris.

1. That hydrotherapy is a dangerous therapeutical method which does not rest on facts.
2. That its theory is chimerical.
3. That it is in disaccord with our chemical and pathological doctrines.
4. That the Academy cannot in any way approve of it.
5. That the use of cold water has been long in the domain of medicine, and submitted to known rules.

On the Nature and Treatment of Tic Douloureux, Sciatica, and other Neuralgic Disorders. By HENRY HUNT, M.D. Churchill. 1844. Pp. 191.

THERE need be no hesitation in recommending Dr. Hunt's work as the best practical treatise on neuralgia that has yet issued from the press. The author regards tic douloureux as a secondary affection, arising from some peculiarity of constitution or neuralgic habit; dyspepsia; dyspepsia, complicated with visceral congestion; anemia; malaria; the recession of eruptions, and other causes; and as associated with disease of the spine, of the uterus, of the brain, mechanical injury, &c.; and rational precepts are laid down in the work for the employment of bark, iron, arsenic, turpentine, the sedatives that are usually resorted to for the relief of pain, and of evacuants and other remedies in the varieties and complications of this truly distressing disease, with judiciously selected and interesting illustrative cases.

But in commending the work, as we sincerely do, we shall not forego the rights of the critic. The author describes a class of persons in whom the natural sensibility of the nervous system is so increased as to render them peculiarly obnoxious to neuralgic pains:—

"Individuals who are of this nervous and irritable habit, are morbidly sensible to every impression, both moral and physical, and on them impressions produce more than ordinary corresponding effects. If at any time their general health become disordered, or the feeble powers of their constitution be further weakened, an attack of pain, having all the characters of tic douloureux, is the consequence, which does not readily subside until the morbid irritation is allayed and their strength restored."—P. 11.

Doubtless, this is described from nature, and Dr. Hunt's work throughout bears the stamp of original observation. But at this time of day the vague expression, "a nervous and irritable habit," is by no means satisfactory. *Function* has a direct relation to structure, a fact which is admitted by the author in the paragraph immediately preceding the above quotation; but it is at the same time maintained to be impossible, in the present state of our knowledge, to explain the peculiarities of structure which predispose to various disorders. Both structure and function depend, in the long run, not only upon original organisation, but upon the materials and agencies that are brought to bear upon the living system, before and after the period of birth, and, accordingly, upon the habitual actions that occur, throughout days and years, in every vital tissue. The measure of these more intimate phenomena is to be found in the ingesta and the egesta, in the secretions and the blood; and we cannot but think that had Dr. Hunt allowed his attention to dwell upon this part of his subject he would have given us a better account of what a nervous and irritable habit consists in,—that he would have drawn a comparison between the diet, the amount of exercise, the habits of thought and of sleep, the daily condition of the secretions, and the state of the blood, in those whom he classes as nervous and irritable persons, and individuals enjoying an immunity from that condition. And, again, where he writes of the neuralgic habit having been overcome by remedies, we should have expected that he would have compared and described in a more specific manner the different states of the system, as respects fluids and solids, structure and function, before and after the employment of such remedies.

Dr. Hunt places considerable reliance on the employment of emetics, in the first in-

stance, in some of the most common forms of neuralgia complicated with gastric and other visceral disorder. Our own experience is in favour of this practice, and inclines us to think that, in various diseases, this part of the *methodus medendi* has been much neglected by modern practitioners. In a successful case, described by the author, after an emetic and a moderate purgative had been given, the following draught, taken three times daily, effected a cure in about a month, the *liquor arsenicalis* having been increased from four to twelve minims :—

℞ *Liquor arsenicalis*, four minims;
Compound tincture of camphor, twelve minims;
Cinnamon water, ten minims. For a draught.

But the merit of the work consists in the various remedies that have hitherto been employed at hazard, for the relief or cure of this affection, being appropriated according to their respective powers to the numerous varieties which it assumes, this appropriation being undoubtedly the result of experience. Not forgetting the ancient dogma, *experientia fallax*, the author's experience seems to have been guided by discretion and a sound judgment.

The subject of sciatica is remarkably well handled,—active and chronic inflammation, true neuralgia, and pain from pressure, in the sciatic nerve, being described, in the first place, and the treatment which is adapted to each of these cases being then laid down. In the chronic disease the neurilema has been found thickened and indurated, with turgescence of its vessels, and the nerve itself "expanded, and its fibres separated, as if by effusion into the cellular membrane which connects its filaments together." In this form of disease mercury is the most efficacious of internal remedies. The author has employed the following preparation :—

℞ *Phosphate of mercury*, one grain;
Opium, one grain;
Tartarised antimony, a quarter of a grain. For a pill.

One every night, with evacuants, colchicum, and nitrate of potassa, counter-irritation, or the occasional abstraction of blood, which plan of treatment he has found successful in long standing and obstinate cases. The following is an illustration of the utility of the iodide of potassium :—

"A gentleman of middle age, of strong robust health, a great fisherman, was seized with a violent attack of sciatica in both legs, after having stood for many hours in the water. The violence of the attack was subdued by medical treatment; it then gradually dwindled into a chronic form, and resisted the efforts of numerous physicians and surgeons for the space of four years. The consequence of this protracted suffering was impaired health, loss of flesh, loss of spirits, of energy, and power over the lower extremities, which were wasted in a greater degree than his emaciated body. The pain was constant, with great nocturnal exacerbations, and with some degree of nightly fever. In this miserable state, after every remedy, rational and empirical, both here and in Germany, had been tried and failed, he was advised to take three grains of the iodide of potassium, in the decoction of sarsaparilla, three times a day. On the fourth night the pain was sensibly diminished; on the fifth more so; and at the expiration of ten days he was perfectly free and easy. He continued the medicine six weeks, at the end of which time he was restored to his former health; he had also recovered the use of his legs, which were ultimately restored to their usual size and firmness."

Although the reader is referred to Dr. Macculloch's treatise for all that relates to malaria as a cause of neuralgia, the author makes some very judicious and perfectly accurate remarks on the effects of a damp relaxing atmosphere in inducing this disease, and the converse effects of a dry bracing air in enabling the constitution to throw it off. Our own experience agrees with that of the author as to the efficacy of large doses of quinine, where the more usual quantity has failed, in some cases of periodical headach.

HUNTERIAN ORATION.

The Hunterian Oration was delivered this year on Wednesday, February the 14th, by F. South, Esq., surgeon to St. Thomas's Hospital. The amphitheatre at the College of Surgeons was at an early hour crowded by members, young and old, among whom we recognised most of the medical officers of the Borough hospitals.

Mr. South commenced his oration by adverting to the origin of surgery in the days of Homer, and then took a very cursory survey of its state and progress in different ages until it began to dawn in England. The origin and legal character of the Barbers' and Surgeons' Company were briefly described, and a few words devoted to some of our more illustrious surgeons until the time of Cheselden. Mr. South had thus far advanced in his rapid analysis of the history of surgery when he was obliged to conclude, the hour having expired. This he did by briefly alluding, in

the following manner, to the death of his colleague, Mr. Tyrrell.

It is my painful duty to advert to the recent loss of one who was formerly my fellow-pupil, and latterly my colleague at St. Thomas's. I need scarcely say that I allude to Frederick Tyrrell, who has been snatched from us whilst still young, and in the midst of a practice raised by himself. His life we may probably, if not certainly, add to the list of those that have been sacrificed to the energy and abnegation with which professional duties have been followed.

Frederick Tyrrell was born in 1794; in 1811 or 1812 he was apprenticed to Sir Astley Cooper, and I believe did not, during his apprenticeship, show indications of superior talent or ability. In 1819 he went to Edinburgh, where he remained twelve months. On his return in 1820 he was appointed assistant-surgeon to the London Eye Infirmary. In 1822 he was appointed surgeon to St. Thomas's, and was not long before he showed what sort of stuff he was made of. To those who saw him prescribe and operate I need scarcely say that few men were superior to him either in the operating-room, or when medically treating surgical cases. In 1825, on the division of the two schools, he was anxious to become a teacher of anatomy at St. Thomas's, but failing to obtain the post he desired he accepted the lectureship of anatomy and surgery at the Aldersgate-street School. From that time his life was one of toil and labour, as all will readily credit who know what it is to have to unite teaching with practice. He was hard at work early in the morning, and found the day fully occupied by his practice, his lectures, and his hospital duties. He was soon, however, rewarded by the increase of his reputation, both as a surgeon and as a teacher. He was subsequently called upon to teach anatomy at St. Thomas's. During the last few years of his life his practice increased rapidly, and had it pleased God to spare his life he would have, no doubt, received the full reward of his labour and talents. He has left behind him a memory fondly cherished by his friends, and a character which deservedly stands high in the estimation of the profession.

ARMY MEDICAL REPORTS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 27 (p. 576), I observe a letter from Mr. Raleigh, complaining of your review of his work on Idiopathic Dysentery. The defence of that review may be safely left in your own hands, but I wish to draw your attention to one part of his letter. He asserts that you have condemned his work "on the ground of its not coinciding with records to be found in the 'History of British India' or the convenient statistical Reports of Major Tulloch." I cannot understand why he has referred to the last-named work, as there is not the least allusion to these Reports in the review complained of; but I must protest against the manner in which he has alluded to them. It may be *convenient* for Mr. R. to dispute the accuracy of these reports, but let him do so fairly. Let him adduce proof of their inaccuracy, if he can, which will be more convincing than a mere sneer. But why does he call them Major Tulloch's Reports? Does he mean to insinuate that they are the production of a military and not a medical officer, and therefore are unworthy of credit? Had Mr. R. read them with half the attention they deserve he would have known that they were compiled from the returns of the medical officers of H.M. army; if, then, he wishes to throw discredit on them, let him show, either that these returns have been sent in systematically incorrect (rather a serious imputation against the army surgeons) or that the figures have been falsified by the compilers.

But the dodge of calling them Major Tulloch's reports will not answer Mr. R.'s *convenience*. The "Reports on the Health of the Army" have been compiled by Deputy-Inspector Marshall, Major Tulloch, and Staff Assistant-Surgeon Balfour, and have, before publication, been submitted to, and approved by, the Director-General of the Army Medical Department. Mr. Raleigh may, if he pleases, raise the question whether the gallant Major has not thrust his name rather too prominently forward, to the exclusion of his medical colleagues, especially as Mr. Marshall is his senior in rank (Deputy-Inspector ranking with Lieut.-Colonel); but he ought not, in fairness, to insinuate that the reports are inaccurate because compiled by a military man. It may be *convenient* for Mr. R. to decry the value of statistics, but I would recommend him, before doing so, to read your number for June 17, 1843. Their value has been long acknowledged at home. I trust our brethren in India are not so much behind us as Mr. R. would almost tempt us to suppose. Permit me, in conclusion, to ask, why have not the medical officers of the Indian army published anything like *our* (not Major Tulloch's) statistical reports? Have they data? Or, while Sir James McGrigor has, for the last twenty-eight years, been collecting the materials on which these reports have been founded, have the E.I. Company's medical officers been sleeping, or, more likely, so occupied accumulating rupees, as to have no time for the preparation of reports or for the investigation into the sickness and mortality of their poor soldiers. I have the honour to be, Sir, your obedient servant,

AN ARMY SURGEON.

Feb. 1, 1844.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Feb. 10, 1844.

Dr. Reid, President.

Mr. Dunn related two cases of arachnitis occurring in children which will be published in the next number of The Lancet.

Mr. Holt made some observations on the sympathy existing between head affections and diseases of the chest and abdomen, and mentioned some cases in which the one had been so marked by the other that the practitioner was misled as to the real nature of the cases. In answer to a question, Mr. Holt said that the patient whose case he had detailed at the last meeting remained in the same state, except that the cold stage was not quite so severe.

Mr. Acton wished to ask Mr. Holt if any symptoms of gleet existed at the present time; he put this question because the case, as detailed on a former evening, might lead to the inference that the periodic fever had some relation to the previous gonorrhœa. He (Mr. Acton) thought that many diseases were attributed to gonorrhœa which, on closer examination, were found to bear no relation to that complaint, as he believed to be the case in the instance before the society. The records of venereal disease gave no authenticated examples of ague following gonorrhœa, and he believed that the affection in this instance was a mere coincidence. He entertained the same opinion relative to what was generally termed gonorrhœal rheumatism, a complaint that modern writers failed in characterising otherwise than as the most obstinate form of the disease, but as far as symptoms or treatment went no differences existed that he could find. That rheumatism might come on in persons suffering under discharges from the urethra no one could doubt, or, if there were any sceptics, he would relate the following case which had recently been under his care, and was a good example of the *two* diseases then under consideration:—A thin, spare man had long suffered under a discharge and a very tight stricture situated at the membranous portion of the urethra; the bougie was introduced, and the case went on well for some days, when fever supervened, orchitis came on, and seemed to affect the fibrous coverings principally. While recovering from this attack rheumatism settled in the knee-joints, and the synovial membranes were successively filled with fluid; the disease, on abating in the joints, fixed itself in the intercostal muscles, and much alarm was felt for the pericardium, but this escaped; finally the sclerotic coat of the eye became affected, and iritis followed. This case, in his opinion, was a severe form of rheumatism, coming on in a person who was a victim to a severe form of gonorrhœa and its consequences. There were constitutions in which gonorrhœa *per se* put on a very rebellious form, as all in practice must know; still that disease was very common, and how rarely was it followed by rheumatism, although patients exposed themselves to all the causes which are supposed to occasion that disease. True it was that some of the worst forms of rheumatism were accompanied with gonorrhœa; but how many cases of equally severe rheumatism were unattended with that complaint? He had never seen any cases which induced him to believe that rheumatism bore any other relation to gonorrhœa than a simple coincidence; he rather entertained the opinion that similar states of the system gave rise to the most obstinate forms of rheumatism and gonorrhœa, and that discharges from the urethra depended upon gout and rheumatism, although the converse proposition could in no way be made out. He begged to detail an example of this kind which he treated some months ago; it was the case of a very free liver who complained of a discharge from the urethra, of some few days standing, the serous character of the secretion and the condition of the urine caused him to suspect a general and not local cause, and these suspicions were shortly corroborated by gout attacking the great toe. To distinguish, then, the relation of gonorrhœa and rheumatism was not a mere quibble about terms, but absolutely necessary as affording several indications of treatment in two diseases which were avowedly very rebellious.

Mr. Holt replied that the gleet in the case detailed by him had ceased for two months past. Rheumatism after gonorrhœa was certainly more difficult to treat than other forms of this affection. In his own practice the wine of colchicum-root had been most efficacious in affording relief.

Mr. Chowne related a case of abscess of the brain which was attended by shiverings that were similar to those of ague, with the exception of periodicity.

Dr. Reid referred to a case, published in a late French journal, in which hæmaturia and fits of ague existed together, and were both cured by quinine.

Dr. A. T. Thomson looked upon Mr. Holt's as one of those anomalous cases of periodic fever which occasionally presented themselves to us in practice. He related the case of a woman, at present in University College Hospital, who was affected with periodic fever, the attacks coming on every fifth day generally, but occasionally passing on to the sixth day. The cold, hot, and sweating stages, were complete, and the interval between the attacks was one of perfect health. It was curious that previous to the occurrence of the hot stage, the urine invariably contained blood, but this disappeared in eight or ten hours after, the urine then being only a little flocculent. He explained the circumstance by considering that

congestion of the kidney had occurred during the cold stage, and this congestion was relieved by the occurrence of hæmaturia. The patient had never menstruated, but had the blood depended on this cause he believed the attacks could not have been so periodic. The fever was rendered of the tertian type on the supervention of a cough, but the bloody urine still preceded the hot stage. Antiperiodics, as quinine, arsenic, &c., had afforded no relief. Cupping over the loins previous to one or two of the attacks, had prevented the hæmaturia for one period, but it returned with the fit following. He believed there were many cases of periodic fever without any malarial influence; other causes, such as passing a bougie, as had been noticed by Sir B. Brodie, might produce ague.

Dr. MERRIMAN noticed the pain in the plantar fascia as symptomatic of gonorrhœal rheumatism. Passing a bougie two or three times a week had removed this disease in some cases which had occurred in the Middlesex Hospital.

Mr. CHANCE related a case of severe pains in the soles of the foot, which, resisting all ordinary treatment, gave way during the time the patient was under treatment for stricture. Sir C. Bell, in his work on Diseases of the Urethra, had mentioned pain in the soles of the feet and ball of the great toe, as one symptom of stricture, a symptom which gave way as the stricture was cured. He (Mr. Chance) did not think there was any great difference between ordinary rheumatism and that co-existing with gonorrhœa, with the exception that the latter was more protracted and severe. Colchicum, in these cases, he had occasionally found useful, but the iodide of potassium was the most serviceable of all the remedies he had tried.

Mr. HOLT, to show the sympathy existing between the urethra and the soles of the feet, had lately seen a case, in which Mr. White had performed lithotrity, and in which, during the passage of a fragment through the urethra, or during the time of its obstruction at the neck of the bladder, the patient suffered from severe pains in the soles of the feet. These were relieved when the fragment was expelled, but returned after another sitting, when fresh fragments acted as sources of irritation.

Dr. A. T. THOMSON looked upon what was called "gonorrhœal rheumatism," as the accidental occurrence of rheumatism and gonorrhœa together, the one being independent of the other. He treated rheumatism, so occurring, as he did the ordinary forms of the disease.

Mr. DUNN considered that Dr. Todd had proved rheumatism to be a disease of the blood. He thought the rheumatism coexisting with gonorrhœa altogether independent of it.

Some conversation, of an amusing character, took place, respecting the period at which gonorrhœa was most prevalent. Some thought at the more convivial period of the year, as about Christmas time; others in the spring, at which period all nature felt renewed, and man, among other animals, sharing in this elasticity of feeling, contracted gonorrhœa.

BRITISH MEDICAL JOURNALS.

The "Dublin Medical Press" for January 31 contains a lecture by the late Professor Colles, on nervous affections consequent on wounds, wherein, speaking of

TETANUS,

the professor has described the appearance of the countenance in the following words:—

"It is very peculiar, and if once looked at with attention can never be forgotten. The forehead is wrinkled, both transversely and in the perpendicular direction, the eyebrows being drawn in a remarkable manner towards each other; the eyes are not fully opened; the nostrils more or less dilated; and the angles of the mouth drawn backwards and a little upwards. There is generally an expression of uneasiness, and slightly of apprehension; the mouth is not quite closed, and the teeth are seen; the body is sometimes hot and dry, but oftener the upper part is covered by perspiration, at times profuse." Dr. Colles then remarks, that "There is no disease which has been so often confounded with others as tetanus, although the symptoms are so well marked. For my own part, I think the countenance would, in every case, be sufficient to distinguish it from all others. I never saw but one description of face, one tetanic expression of countenance; it is the same in all cases; it is the first thing that gives the alarm, and the last symptom to depart. Even where a patient recovers, and is able to go about his business, that tetanic face remains. I believe it never leaves him."

THE "Pharmaceutical Journal" for the present month contains the report of a deputation appointed by the council of the Pharmaceutical Society to wait on the Chancellor of the Exchequer relative to the

SALE OF SPIRITS OF WINE

by chemists and druggists. The deputation sum up their report by saying,—"That the Government seem to object to the relaxation of the existing statutes, unless some means could be devised for preserving the main principle and intention of the Legislature in making from time to time the various laws which regulate the sale of spirituous liquors—means which it seems very difficult to suggest, inasmuch as the expense of a licence specially granted for the purpose, or

any supervision from the excise, would be very objectionable, as was stated by the deputation. At the same time it is clear, that while at present no indulgence will be exercised in the permission to sell spirits of wine for indiscriminate use, there is no desire on the part of the Board of Excise to deprive the public of the power to obtain it from the chemist and druggist, when it is *clearly and unequivocally* required for the alleviation of any bodily ailment or disease; and the deputation are not without hope that some advantage may possibly arise from the steps the council have taken."

In the "Edinburgh Monthly Journal" for February we find a continuation of the

REPORT ON FRACTURES,

by Mr. Lyon, to which we have already had occasion to refer (p. 524).

The two following cases present several points deserving of attention:—

"*Simple undepressed Fracture of Cranium; Orbital Plate shattered; Death; Appearances on Dissection.*—P. D., aged forty, admitted February 19, 1843. He lies in a state of stupor, from which he can be roused only by smart stimuli; he cannot be made to speak; breathing is slow, regular, and somewhat stertorous; pupils slightly dilated and sluggish; pulse 80, very small, and irregular; skin very cold; no marks of injury on person, except some ecchymosis around the eyes; penis in a state of priapism; urinary bladder empty; and he is said to have got out of bed and evacuated this morning; these symptoms were occasioned by a fall from a stair to the ground, a height of ten feet, two nights ago, the patient alighting on the upper and left part of the body; he has not been coherent since the accident; bowels moved yesterday by an enema. The head ordered to be shaved and cold lotion applied; warmth to body and extremities. An ounce of sol. carbonate of ammonia to be given every second hour. He died next day, sixteen hours after admission.

"*Inspection.*—*No wound on the head;* an ecchymosed patch under scalp, at anterior and left part of the head, and corresponding in situation with this a clot of blood, the size of a halfpenny, on the surface of dura mater; considerable injection and effusion of lymph on the surface of arachnoid; lateral ventricles distended with turbid fluid; considerable bloody effusion at the base of brain, and some small ecchymosed patches between convolutions; a fracture of the frontal bone had occurred over the orbital ridge of the left side, and the orbital plate was shattered, but not displaced. The lungs were much engorged, and the surfaces of the pleura adherent at many points."

We wish, in this case, to direct particularly the attention of our readers to the very serious character of the internal injury, and to the almost total absence of all external signs by which it could be recognised. Similar cases have frequently presented themselves to our notice. We remember, in particular, the instance of the child for the murder of which Ward was executed some two years ago at the Old Bailey. In this case a post-mortem examination revealed an extensive fracture of the skull. The *dura mater* was torn, and there were other indications of the application of considerable violence, yet externally there was not the slightest mark of injury.

Cases such as these should impress on the medical jurist the necessity of a close and searching inquiry in every instance where death follows the receipt of an injury, even though there be no external mark of violence. The practitioner in medicine should likewise be careful in his prognosis in similar cases, and not augur too favourably of the result of an injury, of the receipt of which he can find no external evidence. The symptoms of a serious injury were here well marked, but cases will not unfrequently present themselves in which they are obscure, or altogether absent for a considerable time after the occurrence of an injury. The case presently to be related well illustrates this remark.

"*Compound depressed Fracture of the Skull; Meningitis mistaken for Fever; Trephine; Phlebitis; Death.*—Mrs. S., aged twenty-six, received, in a scuffle, a stroke on the back of the head, from the extremity of a rod of iron used as a poker. The immediate effects of the blow were very slight, but two days afterwards she had a rigor, followed by febrile disturbance; for this she was seen by a surgeon, who certified that she had typhus fever, and in consequence she was admitted into the Fever Hospital. Two days after her entrance into the hospital suppuration was found to have occurred in the site of a wound on the scalp; here an incision was made, and from it some pus escaped. She was brought to the surgical wards. She then had severe headach, hot skin, thirst, and a quick pulse; the wound open, and the bone felt bare by a probe. Next day the general symptoms had increased, and were accompanied with delirium."

Mr. Lyon goes on to say, "By a careful use of the probe I found that there was a small portion of bone depressed, and being convinced, from the history, that the depression was the cause of all the symptoms, I immediately requested the opinion of my colleagues, who agreed with me in recommending the application of the trephine; this was instantly done, so as to include the depressed portion, which was found to consist of a piece of the external table, about the size of the little finger-nail, and a part of the internal table detached from it, still farther obliquely depressed than, and twice the size

of the other. The dura mater was uninjured and healthy. The flaps of the wound were laid down and lightly dressed, cold lotion applied to the scalp, frequent small doses of calomel exhibited, and mercurial ointment rubbed in. On the day following she was perfectly coherent; pulse 120, head was painful, and she had had a slight rigor. She was bled locally and generally, and next day was much relieved.

"She continued to have occasional headach and rigors, and latterly cough. The mercurials were continued, the head was repeatedly leeched, and the gums became affected by the medicine. The rigors increased in frequency and severity, and were followed by profuse perspirations; the cough became more troublesome, and there were at different points of the chest loud mucous rhonchi, dulness on percussion, and diminished respiratory sound. On the ninth day after the operation she had pain in the right hip-joint; all the symptoms then became aggravated, and she died in a few days afterwards.

"*Inspection.*—Flaps of the wound not united; no diseased appearance on the membranes or in the brain; extensive adhesion of pleuræ; three abscesses in the right lung, each containing about an ounce of pus; numerous smaller deposits of similar character in the left lung; a large purulent deposit between the glutæi muscles of the right side; hip-joint healthy."

Mr. Lyon remarks, "It is worthy of notice, that the immediate effects of a blow which was sufficient to fracture and depress a portion of the skull occasioned only slight discomfort. She informed me that she was slightly stunned by the blow, that afterwards she complained more of general headach and corporeal languor than of pain in the site of the wound, and that for a day or two she attended as usual to her ordinary avocations. I have repeatedly seen patients with deeply-depressed compound fractures of the skull in full possession of their mental and corporeal functions, some of them for hours, and others for days after reception of the injuries."

It is to be regretted that the post-mortem examination was not more complete. Its results, however, such as they are, are of interest to the pathological inquirer.

"CHARCOAL-POWDER, blended with, and sprinkled over portions of a subject under dissection, will, in the course of a night, in great measure remove the offensive effluvia. The hands of students rubbed well with the charcoal before washing them, will dispel the usual stench of dissection."—*Veterinarian*, February.

THE tendency to commit suicide appears to increase up to the age of 60, and to be then more than three times as great as at the age of 25.

NEWS OF THE WEEK.

MARYLEBONE AND PADDINGTON HOSPITAL.—A general meeting of the subscribers and friends of the proposed hospital was held on Friday, the 9th of Feb., inst., in the theatre of the Marylebone Literary and Scientific Institution, for the purpose of receiving the report of the committee, and in order to consider generally the affairs of the charity, and particularly the expediency of procuring a site for the hospital. Benjamin Bond Cabbell, Esq., F.R.S., F.S.A., having been called to the chair, the report of the acting committee was read by Wm. Tatham, Esq., the honorary secretary. From this report it appears that the amount of subscriptions, which at the meeting of subscribers in June last was reported to be 4371*l.*, is now increased to 6304*l.*, of which 313*l.* are annual subscriptions. At a meeting of the subscribers held in June last, it was decided that the building of the hospital should not commence until 15,000*l.* was raised. This decision has hitherto been acted up to by the committee, although it is evident, they state, that the want of a substantial tangible existence has prevented many from subscribing. The committee, therefore, propose that, without infringing the clause with regard to the erection of the hospital, a portion of the funds subscribed should be devoted to the purchase of a site. This they are the more inclined to advise as a munificent offer has recently been conveyed to them through one of the committee, Mr. Budd, who has been authorised to make the following statement:—"That in event of the committee being in a condition, within twelve months from the present time, to enter into a contract to lay out 4000*l.* towards the erection of a portion of the building, that then a donation of 2000*l.* would be added to that 4000*l.*, provided a contract be then forthwith entered into for a building of 6000*l.*" The following are the principal resolutions which were passed at the meeting:—Moved by A. Bœtefeur, Esq., seconded by Alexander Erskine, Esq., and resolved, "That the committee be empowered to invest a portion of the subscriptions and donations in the purchase of a freehold site." Moved by R. E. Broughton, Esq., seconded by J. Treble, Esq., and resolved unanimously, "That with a view to meet the conditions of the munificent offer mentioned in the report, and to enable the committee to avail themselves of it, and at the same time to keep faith with the 15,000*l.* resolution, this meeting pledge themselves to aid the committee with their zealous co-operation to obtain the 15,000*l.* within the specified time."

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN IN LONDON AND ITS VICINITY.—We beg to call attention to

the dinner of this society, advertised in THE LANCET of to-day to take place at the Freemasons' Tavern, on Tuesday next.

THE deaths in the metropolis for the week ending February 3rd, 1844, show an increase of 75, as compared with those of the previous week, the number being 1086 (*vice* 1011). The deaths are classed under the following heads:—

Diseases of the lungs, &c.	391—*v.* 346	
Dis. of the nervous system....	180—*v.* 177	
Epidemic and contagious dis...	176—*v.* 168	
Cancer, dropsy, and diseases of uncertain seat	101—*v.* 85	
Old age	85—*v.* 96	
Diseases of the liver, stomach, and other digestive organs ..	73—*v.* 65	
Diseases of the heart and blood-vessels	34—*v.* 33	
Violence, privation, intemperance	19—*v.* 15	
Childbirth, diseases of uterus..	12—*v.* 8	
Diseases of kidneys, &c.....	5—*v.* 10	
Rheumatism, dis. of bones, &c.	4—*v.* 4	
Diseases of the skin and cellular tissue	1—*v.* 1	
Causes not specified	5—*v.* 3	
Total.....	1086	1011

APOTHECARIES' HALL, LONDON.

NAMES of gentlemen who received certificates of qualification to practise as apothecaries on Thursday, February 8, 1844:—Thomas George Tebay; Basil Viret, Swindon, Wilts; Charles Sutcliffe, Todmorden, Yorkshire; William McCheane, Liverpool; John Chambers, Hackney-road, London; Robert Hutchinson Powell, Tonbridge Wells.

CORRESPONDENTS.

A Constant Reader has asked us—how to treat acne indurata? The digestive functions and general health good. In such cases antiphlogistics are often of great service, such as bleeding from the arm, saline purgatives, abstinence from all stimuli, light diet, and emollient applications to the face. Should this treatment prove inefficacious, the pustules may be pricked with a needle and poultices used (E. Wilson), or frictions resorted to with an ointment in which enters the ammoniacal protochloride of mercury or the iodide of sulphur. Vapour-baths to the face, or blisters, are sometimes useful. We have, however, seldom seen much good effected at the Hospital St. Louis by local agents in this very obstinate disease. We do not profess to prescribe in this place—this answer must not form a precedent.

Will *A Borough Student*, whose note was dated Feb. 5th, communicate to us his name and address, in confidence.

We cannot insert the cases of heart disease of *Dr. E. W.*, the auscultatory phenomena not being indicated with sufficient precision to render them valuable in a scientific point of view. The morbid anatomy of the various diseases of the heart is now so well known that, however distinct the anatomical lesions may be, a case only possesses interest if the connection between *all* the symptoms exhibited during life and those lesions be clearly indicated.

Dr. Chambers' paper on Pleurisy will be published in an early number.

We shall be much obliged to *Anti-Quack* if he will favour us with another copy of the handbill he forwarded to us last week.

We beg to inform *Mr. Hicks* that foreign diplomas are not at present recognised by law. The London-purchased German diplomas to which he alludes are of no more value, either in a scientific or a legal point of view, than so much waste paper. They are a disgrace to the country from which they emanate. We refer Mr. H. to the letter from Mr. T. Wait, which we published in our last number.

We shall next week be able to answer *F. W.'s* questions respecting the Sydenham Society.

The communications of *Mr. Craig*, *Dr. Chambers*, *Dr. Holt Yates*, *Mr. Coote*, *Dr. Wright*, *Dr. Day*, and *Mr. Churchill*, will be inserted in an early number of THE LANCET.

Communications have been received from *Mr. Wheatcroft*, *Mr. Judd*, *Dr. Hartwigg*, *Cosmopolis*, *Mr. Walsh*, *Dr. B. Styres*, *Dr. Wright* (on Saliva, last part), the *Royal Free Hospital*, and *M.D.*

Other answers to correspondents must be deferred until next week.

LANCET OFFICE.

COMPLAINTS having been repeatedly made to us of the uncertainty which has attended the endeavours of our correspondents to obtain interviews with some person who could exercise authority in the editorial department of this Journal, we embrace this opportunity of stating that, in future,

DR. HENRY BENNET.

SUB-EDITOR OF THE LANCET,

WILL ATTEND AT THE OFFICE, PRINCES-STREET,

On Mondays and Wednesdays,

From the hours of ONE to THREE o'clock.

It is particularly requested that all *communications* and *articles* which are forwarded for *publication* in THE LANCET, be sent to the EDITOR, at the OFFICE; and that letters of a private or personal character, which may refer, in any manner, to the proceedings of the Journal, be addressed to the EDITOR, at his residence, in BEDFORD SQUARE.